

Table 7

| Table 7 |       |               |
|---------|-------|---------------|
| ES #    | CMCC# | ATCC Deposit# |
| 85      | 5175  | PTA-1313      |
| 86      | 5176  | PTA-1314      |
| 87      | 5177  | PTA-1315      |
| 88      | 5178  | PTA-1316      |
| 89      | 5179  | PTA-1317      |
| 90      | 5180  | PTA-1318      |
| 91      | 5181  | PTA-1319      |
| 92      | 5182  | PTA-1320      |
| 93      | 5183  | PTA-1321      |
| 94      | 5184  | PTA-1322      |
| 95      | 5185  | PTA-1323      |
| 96      | 5186  | PTA-1324      |
| 97      | 5187  | PTA-1325      |
| 98      | 5188  | PTA-1326      |
| 99      | 5189  | PTA-1327      |
| 100     | 5190  | PTA-1328      |
| 101     | 5191  | PTA-1329      |
| 102     | 5192  | PTA-1330      |
| 103     | 5193  | PTA-1331      |
| 104     | 5194  | PTA-1332      |
| 105     | 5195  | PTA-1333      |
| 106     | 5196  | PTA-1334      |
| 107     | 5197  | PTA-1335      |
| 108     | 5198  | PTA-1336      |
| 109     | 5199  | PTA-1372      |
| 110     | 5200  | PTA-1373      |
| 111     | 5201  | PTA-1374      |
| 112     | 5202  | PTA-1375      |
| 113     | 5203  | PTA-1376      |
| 114     | 5204  | PTA-1377      |
| 115     | 5205  | PTA-1378      |
| 116     | 5206  | PTA-1379      |
| 117     | 5207  | PTA-1380      |
| 118     | 5208  | PTA-1381      |
| 122     | 5212  | PTA-1382      |
| 123     | 5213  | PTA-1383      |
| 124     | 5214  | PTA-1384      |
| 125     | 5215  | PTA-1385      |
| 126     | 5216  | PTA-1386      |
| 127     | 5217  | PTA-1387      |
| 128     | 5218  | PTA-1388      |
| 129     | 5219  | PTA-1389      |
| 130     | 5220  | PTA-1390      |
| 131     | 5221  | PTA-1391      |
| 132     | 5222  | PTA-1392      |
| 133     | 5223  | PTA-1393      |
| 134     | 5209  | PTA-1431      |
| 135     | 5210  | PTA-1432      |
| 136     | 5238  | PTA-1497      |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 85   | M00057077B:D02 | ES 109 | M00027658B:G03 |
| ES 85   | M00057078D:C12 | ES 109 | M00027660C:E03 |
| ES 85   | M00057079D:E09 | ES 109 | M00027660C:E03 |
| ES 85   | M00057080C:C02 | ES 109 | M00027665B:D01 |
| ES 85   | M00057085A:A03 | ES 109 | M00027681D:D02 |
| ES 85   | M00057088B:C02 | ES 109 | M00027699D:D02 |
| ES 85   | M00057091A:C03 | ES 109 | M00027717C:G05 |
| ES 85   | M00057091A:C04 | ES 109 | M00027733D:D05 |
| ES 85   | M00057091C:E12 | ES 109 | M00027742C:B01 |
| ES 85   | M00057093B:F09 | ES 109 | M00027742C:B01 |
| ES 85   | M00057099C:C08 | ES 109 | M00027747D:D01 |
| ES 85   | M00057100C:E09 | ES 109 | M00027757A:B06 |
| ES 85   | M00057100D:B03 | ES 109 | M00027781D:E04 |
| ES 85   | M00057103A:E11 | ES 109 | M00027786D:B01 |
| ES 85   | M00057103A:H09 | ES 109 | M00027803A:H10 |
| ES 85   | M00057104B:F08 | ES 109 | M00027806C:H05 |
| ES 85   | M00057106B:A03 | ES 109 | M00027808D:G10 |
| ES 85   | M00057106C:E02 | ES 109 | M00027817B:B11 |
| ES 85   | M00057106D:B06 | ES 109 | M00027820C:C02 |
| ES 85   | M00057108B:F04 | ES 109 | M00027823C:G07 |
| ES 85   | M00057108D:E09 | ES 109 | M00027829C:D02 |
| ES 85   | M00057108D:E09 | ES 109 | M00027833C:D01 |
| ES 85   | M00057112D:B09 | ES 110 | M00042345A:F12 |
| ES 85   | M00057114D:B10 | ES 110 | M00042523A:C05 |
| ES 85   | M00057117D:G11 | ES 110 | M00042523C:E08 |
| ES 85   | M00057118C:C02 | ES 110 | M00042525D:E01 |
| ES 85   | M00057120D:E12 | ES 110 | M00042527B:D07 |
| ES 85   | M00057124B:D10 | ES 110 | M00042528C:F11 |
| ES 85   | M00057127A:F11 | ES 110 | M00042529C:G07 |
| ES 85   | M00057127B:G07 | ES 110 | M00042532A:F08 |
| ES 85   | M00057130C:H11 | ES 110 | M00042534A:B07 |
| ES 85   | M00057131C:B01 | ES 110 | M00042536D:F01 |
| ES 85   | M00057132C:F08 | ES 110 | M00042537A:H05 |
| ES 85   | M00057133D:F01 | ES 110 | M00042538B:E06 |
| ES 85   | M00057134A:C01 | ES 110 | M00042538D:A08 |
| ES 85   | M00057134C:A01 | ES 110 | M00042539C:E05 |
| ES 85   | M00057134D:G10 | ES 110 | M00042540A:H06 |
| ES 85   | M00057135D:H04 | ES 110 | M00042540D:F03 |
| ES 85   | M00057136A:F01 | ES 110 | M00042540D:H05 |
| ES 85   | M00057141B:B02 | ES 110 | M00042543C:H02 |
| ES 85   | M00057141D:D02 | ES 110 | M00042544B:D02 |
| ES 85   | M00057142A:A07 | ES 110 | M00042544C:F10 |
| ES 85   | M00057143C:E05 | ES 110 | M00042547A:A02 |
| ES 85   | M00057145A:D05 | ES 110 | M00042547B:D11 |
| ES 85   | M00057146D:C09 | ES 110 | M00042547C:F02 |



| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 85   | M00057147A:A01 | ES 110 | M00042551A:D09 |
| ES 85   | M00057150A:C10 | ES 110 | M00042556A:D04 |
| ES 85   | M00057151A:B04 | ES 110 | M00042563C:E02 |
| ES 86   | M00057154A:D06 | ES 110 | M00042563C:E02 |
| ES 86   | M00057154C:B04 | ES 110 | M00042563D:G09 |
| ES 86   | M00057161B:E09 | ES 110 | M00042564B:H11 |
| ES 86   | M00057162A:C07 | ES 110 | M00042565A:H03 |
| ES 86   | M00057162B:H02 | ES 110 | M00042565C:A08 |
| ES 86   | M00057162D:D10 | ES 110 | M00042567D:C01 |
| ES 86   | M00057163D:B01 | ES 110 | M00042570D:H02 |
| ES 86   | M00057165D:E12 | ES 110 | M00042573C:A07 |
| ES 86   | M00057167B:E12 | ES 110 | M00042574B:H08 |
| ES 86   | M00057167B:G12 | ES 110 | M00042575C:D01 |
| ES 86   | M00057167D:B07 | ES 110 | M00042693D:E04 |
| ES 86   | M00057170C:H03 | ES 110 | M00042694C:E02 |
| ES 86   | M00057174B:C06 | ES 110 | M00042695B:H05 |
| ES 86   | M00057174B:G12 | ES 110 | M00042700B:A01 |
| ES 86   | M00057174C:H12 | ES 110 | M00042700B:D03 |
| ES 86   | M00057180A:H11 | ES 110 | M00042700B:D03 |
| ES 86   | M00057181C:D06 | ES 110 | M00042700D:H05 |
| ES 86   | M00057182D:B11 | ES 110 | M00042704A:F04 |
| ES 86   | M00057189B:G05 | ES 110 | M00042704A:F09 |
| ES 86   | M00057191A:A03 | ES 110 | M00042704D:E02 |
| ES 86   | M00057192B:E02 | ES 110 | M00042705A:D02 |
| ES 86   | M00057192D:G02 | ES 110 | M00042706C:A04 |
| ES 86   | M00057196A:E03 | ES 110 | M00054596B:G11 |
| ES 86   | M00057196C:F04 | ES 110 | M00004101C:H01 |
| ES 86   | M00057203C:E06 | ES 111 | M00042711C:G11 |
| ES 86   | M00057208A:A02 | ES 111 | M00042711D:C04 |
| ES 86   | M00057208C:C06 | ES 111 | M00042712B:B10 |
| ES 86   | M00057208C:D08 | ES 111 | M00042717D:D04 |
| ES 86   | M00057211B:F07 | ES 111 | M00042718B:C03 |
| ES 86   | M00057211D:A06 | ES 111 | M00042720C:D06 |
| ES 86   | M00057215B:B02 | ES 111 | M00042720D:G10 |
| ES 86   | M00057217B:B07 | ES 111 | M00042721A:G07 |
| ES 86   | M00057218D:C01 | ES 111 | M00042727C:H12 |
| ES 86   | M00057223C:C06 | ES 111 | M00042728D:E07 |
| ES 86   | M00057224B:C10 | ES 111 | M00042732A:G09 |
| ES 86   | M00057226D:C05 | ES 111 | M00042735C:G02 |
| ES 86   | M00057229D:F06 | ES 111 | M00042735D:A07 |
| ES 86   | M00057230C:D12 | ES 111 | M00042738B:D10 |
| ES 86   | M00057231C:G09 | ES 111 | M00042739D:D01 |
| ES 86   | M00057231D:A09 | ES 111 | M00042741D:D10 |
| ES 86   | M00057232B:D06 | ES 111 | M00042742B:H03 |
| ES 86   | M00057233A:F07 | ES 111 | M00042742C:A06 |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 86   | M00057233B:E04 | ES 111 | M00042742D:D05 |
| ES 86   | M00057236B:H06 | ES 111 | M00042746B:F02 |
| ES 86   | M00057237A:B11 | ES 111 | M00042746D:B09 |
| ES 86   | M00057239A:G08 | ES 111 | M00042750D:B09 |
| ES 86   | M00057241B:B04 | ES 111 | M00042881D:C08 |
| ES 86   | M00057242B:F07 | ES 111 | M00042883A:F12 |
| ES 87   | M00057242D:B09 | ES 111 | M00042886C:C03 |
| ES 87   | M00057242D:H05 | ES 111 | M00042886C:F01 |
| ES 87   | M00057249A:C06 | ES 111 | M00042887C:D07 |
| ES 87   | M00057259A:H10 | ES 111 | M00042889B:A09 |
| ES 87   | M00057259B:B08 | ES 111 | M00042890D:C08 |
| ES 87   | M00057266C:D04 | ES 111 | M00042891B:C04 |
| ES 87   | M00057266C:G12 | ES 111 | M00042893B:C08 |
| ES 87   | M00057268C:E10 | ES 111 | M00042900C:C07 |
| ES 87   | M00057270B:H09 | ES 111 | M00042901B:A03 |
| ES 87   | M00057270C:E04 | ES 111 | M00042902A:C04 |
| ES 87   | M00057271C:E01 | ES 111 | M00042905A:F11 |
| ES 87   | M00057272A:B03 | ES 111 | M00042905C:C10 |
| ES 87   | M00057272C:H04 | ES 111 | M00042908D:G01 |
| ES 87   | M00057272D:A01 | ES 111 | M00042909B:G04 |
| ES 87   | M00057275B:A12 | ES 111 | M00042911A:H03 |
| ES 87   | M00057277B:C09 | ES 111 | M00042914D:B10 |
| ES 87   | M00057277B:E10 | ES 111 | M00054792D:E09 |
| ES 87   | M00057279A:G02 | ES 111 | M00054793D:B07 |
| ES 87   | M00057280C:A06 | ES 111 | M00054798D:F01 |
| ES 87   | M00057283A:E06 | ES 111 | M00054913C:G03 |
| ES 87   | M00057288D:E08 | ES 111 | M00054915D:E07 |
| ES 87   | M00057291C:B06 | ES 111 | M00054917B:F09 |
| ES 87   | M00057297A:F03 | ES 111 | M00054917D:D12 |
| ES 87   | M00057300B:F02 | ES 111 | M00054918C:D03 |
| ES 87   | M00057301B:H12 | ES 112 | M00054918D:C11 |
| ES 87   | M00057304A:E01 | ES 112 | M00055426B:B02 |
| ES 87   | M00057306B:H07 | ES 112 | M00055426C:H06 |
| ES 87   | M00057312B:E11 | ES 112 | M00055427A:F01 |
| ES 87   | M00057318B:B09 | ES 112 | M00055428C:A02 |
| ES 87   | M00057318C:A03 | ES 112 | M00055429A:H05 |
| ES 87   | M00057324A:D12 | ES 112 | M00055430B:H02 |
| ES 87   | M00057325C:C10 | ES 112 | M00055431C:E09 |
| ES 87   | M00057333A:F09 | ES 112 | M00055438C:C06 |
| ES 87   | M00057334B:F01 | ES 112 | M00055438C:H10 |
| ES 87   | M00057337B:G02 | ES 112 | M00055441B:D02 |
| ES 87   | M00057340B:C12 | ES 112 | M00055445D:G06 |
| ES 87   | M00042355A:G02 | ES 112 | M00055446C:B06 |
| ES 87   | M00042355D:C01 | ES 112 | M00055447D:H04 |
| ES 87   | M00042442D:A02 | ES 112 | M00055447D:H04 |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 87   | M00042444D:G05 | ES 112 | M00055448A:D08 |
| ES 87   | M00042444D:H08 | ES 112 | M00055448C:E07 |
| ES 87   | M00042450D:H10 | ES 112 | M00055450A:G09 |
| ES 87   | M00042453C:E01 | ES 112 | M00055450D:B08 |
| ES 87   | M00042460D:A07 | ES 112 | M00055451A:F07 |
| ES 87   | M00042517C:F07 | ES 112 | M00055451A:F11 |
| ES 87   | M00042518D:A06 | ES 112 | M00055451C:G11 |
| ES 87   | M00042520A:F04 | ES 112 | M00055453C:E01 |
| ES 88   | M00042520A:F09 | ES 112 | M00055453C:E01 |
| ES 88   | M00042520A:F09 | ES 112 | M00055454A:A07 |
| ES 88   | M00043296C:B10 | ES 112 | M00055454A:H11 |
| ES 88   | M00043300A:H11 | ES 112 | M00055454C:G05 |
| ES 88   | M00043301A:F06 | ES 112 | M00055456D:F12 |
| ES 88   | M00043301D:H09 | ES 112 | M00055463D:H10 |
| ES 88   | M00043304A:D01 | ES 112 | M00055464A:F05 |
| ES 88   | M00043304B:C05 | ES 112 | M00055466D:B08 |
| ES 88   | M00043304B:C05 | ES 112 | M00055470B:G01 |
| ES 88   | M00043306D:B07 | ES 112 | M00055491A:G08 |
| ES 88   | M00043309B:H07 | ES 112 | M00055494D:C09 |
| ES 88   | M00043310C:B03 | ES 112 | M00055495A:G02 |
| ES 88   | M00043313A:A03 | ES 112 | M00055495C:D05 |
| ES 88   | M00043313A:G07 | ES 112 | M00055495C:F03 |
| ES 88   | M00043313D:C06 | ES 112 | M00055495D:E02 |
| ES 88   | M00043314C:H04 | ES 112 | M00055496A:F09 |
| ES 88   | M00043317A:H01 | ES 112 | M00055496B:E07 |
| ES 88   | M00043317C:F04 | ES 112 | M00055496C:C09 |
| ES 88   | M00043323C:D04 | ES 112 | M00055498A:H09 |
| ES 88   | M00043324D:D04 | ES 112 | M00055500D:B05 |
| ES 88   | M00043327D:H02 | ES 112 | M00055504C:D08 |
| ES 88   | M00043327D:H02 | ES 112 | M00055505D:A10 |
| ES 88   | M00043336B:E08 | ES 112 | M00055508D:E03 |
| ES 88   | M00043338A:B03 | ES 112 | M00055509C:H09 |
| ES 88   | M00043338B:A03 | ES 112 | M00055510B:B07 |
| ES 88   | M00043345B:C03 | ES 113 | M00055511D:E09 |
| ES 88   | M00043347B:G12 | ES 113 | M00055512C:G06 |
| ES 88   | M00043349A:C08 | ES 113 | M00055512D:D07 |
| ES 88   | M00043350B:H06 | ES 113 | M00055512D:F08 |
| ES 88   | M00043350C:H09 | ES 113 | M00055513C:D06 |
| ES 88   | M00043352A:E09 | ES 113 | M00055514D:H05 |
| ES 88   | M00043352D:B05 | ES 113 | M00055516B:E08 |
| ES 88   | M00043354D:C01 | ES 113 | M00055517B:D03 |
| ES 88   | M00043355D:H11 | ES 113 | M00055519B:C06 |
| ES 88   | M00043361D:D05 | ES 113 | M00055519C:H07 |
| ES 88   | M00043365A:C06 | ES 113 | M00055520C:A06 |
| ES 88   | M00043374A:B02 | ES 113 | M00055522A:E07 |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 88   | M00043374B:B06 | ES 113 | M00055522D:C02 |
| ES 88   | M00043377A:C03 | ES 113 | M00055522D:C02 |
| ES 88   | M00043379D:C07 | ES 113 | M00055523D:C03 |
| ES 88   | M00043381B:E10 | ES 113 | M00055525C:B07 |
| ES 88   | M00043386D:A06 | ES 113 | M00055526D:F09 |
| ES 88   | M00043388D:C09 | ES 113 | M00055527C:E02 |
| ES 88   | M00043394D:B06 | ES 113 | M00055527C:E04 |
| ES 88   | M00043397B:B02 | ES 113 | M00055527D:G11 |
| ES 88   | M00043397C:B09 | ES 113 | M00055528C:F06 |
| ES 88   | M00043503C:C08 | ES 113 | M00055529D:B02 |
| ES 88   | M00043503C:E05 | ES 113 | M00055530D:B07 |
| ES 89   | M00043504C:G06 | ES 113 | M00055532C:G08 |
| ES 89   | M00043504D:G08 | ES 113 | M00055534C:H01 |
| ES 89   | M00043506A:H09 | ES 113 | M00055536C:E06 |
| ES 89   | M00043507A:D05 | ES 113 | M00055536C:F03 |
| ES 89   | M00043508A:A08 | ES 113 | M00055538B:H11 |
| ES 89   | M00043508D:C01 | ES 113 | M00055542C:C01 |
| ES 89   | M00054486A:B11 | ES 113 | M00055542C:F06 |
| ES 89   | M00054493A:A10 | ES 113 | M00055542D:A09 |
| ES 89   | M00054494A:E01 | ES 113 | M00055543A:C05 |
| ES 89   | M00054496A:B09 | ES 113 | M00055543A:C05 |
| ES 89   | M00054499B:E11 | ES 113 | M00055543C:G08 |
| ES 89   | M00054499B:E11 | ES 113 | M00055544A:E04 |
| ES 89   | M00054502A:D01 | ES 113 | M00055544B:B02 |
| ES 89   | M00054502C:E02 | ES 113 | M00055545C:H12 |
| ES 89   | M00054507A:C11 | ES 113 | M00055547D:D10 |
| ES 89   | M00054510D:H09 | ES 113 | M00055547D:E05 |
| ES 89   | M00054513A:A12 | ES 113 | M00055548A:F04 |
| ES 89   | M00054518D:D03 | ES 113 | M00055548C:E12 |
| ES 89   | M00054520C:B05 | ES 113 | M00055548C:E12 |
| ES 89   | M00054521D:F04 | ES 113 | M00055552A:C09 |
| ES 89   | M00054522B:H11 | ES 113 | M00055553B:H04 |
| ES 89   | M00054523D:A10 | ES 113 | M00055553D:C07 |
| ES 89   | M00054524D:B02 | ES 113 | M00055553D:H02 |
| ES 89   | M00054534D:D02 | ES 113 | M00055556C:H09 |
| ES 89   | M00054535C:H09 | ES 113 | M00055560B:B12 |
| ES 89   | M00054542C:A08 | ES 114 | M00055560B:F02 |
| ES 89   | M00054551C:G03 | ES 114 | M00055560C:F06 |
| ES 89   | M00054555C:G12 | ES 114 | M00055563A:A02 |
| ES 89   | M00054561D:E06 | ES 114 | M00055572A:B12 |
| ES 89   | M00054563B:C09 | ES 114 | M00055572C:F03 |
| ES 89   | M00054568A:G11 | ES 114 | M00055575A:D08 |
| ES 89   | M00054569A:H07 | ES 114 | M00055578A:H09 |
| ES 89   | M00054571C:C01 | ES 114 | M00055581D:B01 |
| ES 89   | M00054572B:C01 | ES 114 | M00055582B:E04 |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 89   | M00054575C:C01 | ES 114 | M00055583B:B04 |
| ES 89   | M00054580C:D11 | ES 114 | M00055583B:H05 |
| ES 89   | M00054583A:F05 | ES 114 | M00055584A:C11 |
| ES 89   | M00054587A:F09 | ES 114 | M00055584D:G06 |
| ES 89   | M00054590C:G02 | ES 114 | M00055586C:F05 |
| ES 89   | M00054591C:H07 | ES 114 | M00055586D:F02 |
| ES 89   | M00054595A:B02 | ES 114 | M00055591C:H01 |
| ES 89   | M00054595B:H09 | ES 114 | M00055592D:A05 |
| ES 89   | M00054596B:B07 | ES 114 | M00055594B:A01 |
| ES 89   | M00054600D:G07 | ES 114 | M00055597C:E08 |
| ES 89   | M00054601A:H10 | ES 114 | M00055601C:D09 |
| ES 89   | M00054601D:E08 | ES 114 | M00055602B:G10 |
| ES 89   | M00054602A:C04 | ES 114 | M00055602C:E07 |
| ES 90   | M00054602B:D02 | ES 114 | M00055609A:G03 |
| ES 90   | M00054604A:D09 | ES 114 | M00055609D:F12 |
| ES 90   | M00054604A:D09 | ES 114 | M00055613A:D10 |
| ES 90   | M00054605C:D01 | ES 114 | M00055613A:E02 |
| ES 90   | M00054609A:F01 | ES 114 | M00055618C:A06 |
| ES 90   | M00054609D:H06 | ES 114 | M00055628A:A08 |
| ES 90   | M00054611C:F02 | ES 114 | M00055630B:E09 |
| ES 90   | M00054613A:D09 | ES 114 | M00055633D:A02 |
| ES 90   | M00054613A:D09 | ES 114 | M00055633D:G11 |
| ES 90   | M00054617B:A09 | ES 114 | M00055635A:H10 |
| ES 90   | M00054621B:C06 | ES 114 | M00055635B:E10 |
| ES 90   | M00054621D:D11 | ES 114 | M00055635C:G04 |
| ES 90   | M00054629C:E09 | ES 114 | M00055636A:F10 |
| ES 90   | M00054636B:B03 | ES 114 | M00055647C:B04 |
| ES 90   | M00054636C:A02 | ES 114 | M00055653A:H04 |
| ES 90   | M00054636C:F02 | ES 114 | M00055656A:E09 |
| ES 90   | M00054638A:D09 | ES 114 | M00055662C:A04 |
| ES 90   | M00054638B:C08 | ES 114 | M00055664C:A08 |
| ES 90   | M00054646C:B01 | ES 114 | M00055668B:B07 |
| ES 90   | M00054647D:H02 | ES 114 | M00055679A:A07 |
| ES 90   | M00054648C:H10 | ES 114 | M00055681B:G02 |
| ES 90   | M00054660D:F05 | ES 114 | M00055685D:E01 |
| ES 90   | M00054665B:H08 | ES 114 | M00055686D:E11 |
| ES 90   | M00054665D:E11 | ES 114 | M00055687C:F01 |
| ES 90   | M00054677C:D02 | ES 114 | M00055688C:B04 |
| ES 90   | M00054678A:E07 | ES 114 | M00055689A:G12 |
| ES 90   | M00054679B:D12 | ES 115 | M00055689D:F02 |
| ES 90   | M00054680B:E06 | ES 115 | M00055689D:F07 |
| ES 90   | M00054680D:B11 | ES 115 | M00055691B:E07 |
| ES 90   | M00054681C:B02 | ES 115 | M00055692D:E07 |
| ES 90   | M00054684C:H12 | ES 115 | M00055701C:D10 |
| ES 90   | M00054689D:E12 | ES 115 | M00055703A:B08 |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 90   | M00054691A:E05 | ES 115 | M00055703B:B06 |
| ES 90   | M00054692B:D01 | ES 115 | M00055703B:C05 |
| ES 90   | M00054694D:G04 | ES 115 | M00055703C:G09 |
| ES 90   | M00054706B:C09 | ES 115 | M00055704C:D07 |
| ES 90   | M00054707B:B08 | ES 115 | M00055705C:G07 |
| ES 90   | M00054707B:E05 | ES 115 | M00055706A:A01 |
| ES 90   | M00054713A:D12 | ES 115 | M00055706B:G01 |
| ES 90   | M00054720D:D12 | ES 115 | M00055707D:C08 |
| ES 90   | M00054720D:F11 | ES 115 | M00055709B:G09 |
| ES 90   | M00054721C:F11 | ES 115 | M00055716C:B04 |
| ES 90   | M00054722C:D01 | ES 115 | M00055717B:F04 |
| ES 90   | M00054722D:C08 | ES 115 | M00055718A:F05 |
| ES 90   | M00054726A:F08 | ES 115 | M00055720B:G09 |
| ES 90   | M00054727D:E10 | ES 115 | M00055720C:A06 |
| ES 90   | M00054727D:H06 | ES 115 | M00055720D:A01 |
| ES 90   | M00054728B:E08 | ES 115 | M00055721B:F06 |
| ES 91   | M00054728D:B10 | ES 115 | M00055721B:F06 |
| ES 91   | M00054729A:E01 | ES 115 | M00055721C:E05 |
| ES 91   | M00054731C:C12 | ES 115 | M00055723A:B08 |
| ES 91   | M00054732D:E03 | ES 115 | M00055723D:E05 |
| ES 91   | M00054734D:H10 | ES 115 | M00055724D:D09 |
| ES 91   | M00054739A:G03 | ES 115 | M00055726B:B08 |
| ES 91   | M00054739C:D03 | ES 115 | M00055726C:D12 |
| ES 91   | M00054739C:E06 | ES 115 | M00055726C:G10 |
| ES 91   | M00054740A:H08 | ES 115 | M00055729D:A06 |
| ES 91   | M00054741A:C10 | ES 115 | M00055731A:H12 |
| ES 91   | M00054741A:E10 | ES 115 | M00055733A:G11 |
| ES 91   | M00054741D:G10 | ES 115 | M00055734C:H05 |
| ES 91   | M00054743C:E02 | ES 115 | M00055735C:C07 |
| ES 91   | M00054745D:A03 | ES 115 | M00055735C:G05 |
| ES 91   | M00054747A:F01 | ES 115 | M00055736A:D06 |
| ES 91   | M00054747D:C06 | ES 115 | M00055736B:G03 |
| ES 91   | M00054750C:D12 | ES 115 | M00055736C:G07 |
| ES 91   | M00054752B:A07 | ES 115 | M00055740B:B12 |
| ES 91   | M00054755B:H06 | ES 115 | M00055740B:F09 |
| ES 91   | M00054759A:B08 | ES 115 | M00055743B:C12 |
| ES 91   | M00054760A:A12 | ES 115 | M00055744B:C08 |
| ES 91   | M00054762B:F07 | ES 115 | M00055744C:F08 |
| ES 91   | M00054765B:C05 | ES 115 | M00055744C:F09 |
| ES 91   | M00054766C:B04 | ES 115 | M00055744D:G08 |
| ES 91   | M00054769A:F07 | ES 115 | M00055747C:D09 |
| ES 91   | M00054772C:C06 | ES 115 | M00055749D:H11 |
| ES 91   | M00054773A:A12 | ES 116 | M00055751C:D01 |
| ES 91   | M00054776B:F01 | ES 116 | M00055755C:D02 |
| ES 91   | M00054779A:F07 | ES 116 | M00055755D:H03 |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 91   | M00054780C:G08 | ES 116 | M00055761D:C03 |
| ES 91   | M00054781B:B04 | ES 116 | M00055763B:E06 |
| ES 91   | M00054802A:G02 | ES 116 | M00055765A:B05 |
| ES 91   | M00054804D:H12 | ES 116 | M00055766A:H03 |
| ES 91   | M00054808A:D07 | ES 116 | M00055768A:B05 |
| ES 91   | M00054808B:F08 | ES 116 | M00055770C:G01 |
| ES 91   | M00054810B:H02 | ES 116 | M00055771A:A11 |
| ES 91   | M00054812B:A05 | ES 116 | M00055771A:D01 |
| ES 91   | M00054812D:C07 | ES 116 | M00055771C:A11 |
| ES 91   | M00054812D:C07 | ES 116 | M00055771C:F05 |
| ES 91   | M00054815C:E01 | ES 116 | M00055771D:D04 |
| ES 91   | M00054816C:D11 | ES 116 | M00055771D:F07 |
| ES 91   | M00054821A:C11 | ES 116 | M00055774C:E01 |
| ES 91   | M00054823D:H07 | ES 116 | M00055774D:G03 |
| ES 91   | M00054826B:C10 | ES 116 | M00055775C:B10 |
| ES 91   | M00054826B:E05 | ES 116 | M00055775D:C06 |
| ES 91   | M00054826D:C10 | ES 116 | M00055778A:F09 |
| ES 91   | M00054827B:H01 | ES 116 | M00055779B:A02 |
| ES 92   | M00054832D:E09 | ES 116 | M00055780B:B07 |
| ES 92   | M00054836A:B05 | ES 116 | M00055780D:G08 |
| ES 92   | M00054839B:B02 | ES 116 | M00055781C:C05 |
| ES 92   | M00054839C:F06 | ES 116 | M00055782A:F02 |
| ES 92   | M00054841D:B07 | ES 116 | M00055783A:C11 |
| ES 92   | M00054841D:B07 | ES 116 | M00055785B:F03 |
| ES 92   | M00054842D:C11 | ES 116 | M00055785C:E08 |
| ES 92   | M00054844D:F06 | ES 116 | M00055786A:D05 |
| ES 92   | M00054849D:H11 | ES 116 | M00055788D:A03 |
| ES 92   | M00054851B:E03 | ES 116 | M00055790C:H02 |
| ES 92   | M00054854D:E08 | ES 116 | M00055791A:D05 |
| ES 92   | M00054856D:A02 | ES 116 | M00055791D:F03 |
| ES 92   | M00054857D:E12 | ES 116 | M00055792B:G09 |
| ES 92   | M00054862B:B07 | ES 116 | M00055792D:E07 |
| ES 92   | M00054863B:G03 | ES 116 | M00055794A:G11 |
| ES 92   | M00054865B:H04 | ES 116 | M00055794C:B06 |
| ES 92   | M00054866C:G07 | ES 116 | M00055796D:E10 |
| ES 92   | M00054867A:C07 | ES 116 | M00055797A:D08 |
| ES 92   | M00054867B:B02 | ES 116 | M00055797B:E07 |
| ES 92   | M00054867C:B07 | ES 116 | M00055798B:C06 |
| ES 92   | M00054869C:D01 | ES 116 | M00055800A:D08 |
| ES 92   | M00054870B:D09 | ES 116 | M00055800B:C08 |
| ES 92   | M00054875B:C04 | ES 116 | M00055802A:D08 |
| ES 92   | M00054876B:G03 | ES 116 | M00055802A:G02 |
| ES 92   | M00054877A:H12 | ES 116 | M00055802B:H04 |
| ES 92   | M00054895B:D09 | ES 116 | M00055802C:F12 |
| ES 92   | M00054899D:F07 | ES 116 | M00055803B:A11 |

| ES No. | Clone Name     | ES No. | Clone Name     |
|--------|----------------|--------|----------------|
| ES 92  | M00054899D:G01 | ES 117 | M00055803C:D08 |
| ES 92  | M00054903D:C12 | ES 117 | M00055804A:F03 |
| ES 92  | M00054908B:F07 | ES 117 | M00055804B:F01 |
| ES 92  | M00054910D:G06 | ES 117 | M00055805B:C07 |
| ES 92  | M00054926D:F01 | ES 117 | M00055805C:D10 |
| ES 92  | M00054927B:E08 | ES 117 | M00055806A:H12 |
| ES 92  | M00054931C:A09 | ES 117 | M00055806B:F07 |
| ES 92  | M00054933A:D07 | ES 117 | M00055806C:E09 |
| ES 92  | M00054934C:D03 | ES 117 | M00055807B:G10 |
| ES 92  | M00054935A:E01 | ES 117 | M00055807B:G10 |
| ES 92  | M00054935A:G04 | ES 117 | M00055807D:C04 |
| ES 92  | M00054937A:B03 | ES 117 | M00055808C:G11 |
| ES 92  | M00054937B:A12 | ES 117 | M00055811A:A08 |
| ES 92  | M00054937B:F03 | ES 117 | M00055811D:C12 |
| ES 92  | M00054937C:B10 | ES 117 | M00055812A:E01 |
| ES 92  | M00054941C:G04 | ES 117 | M00055814C:D11 |
| ES 92  | M00054943C:C04 | ES 117 | M00055816B:F01 |
| ES 92  | M00054943D:C03 | ES 117 | M00055817B:F01 |
| ES 92  | M00054945C:G07 | ES 117 | M00055817C:C08 |
| ES 92  | M00054947B:G12 | ES 117 | M00055817C:D08 |
| ES 92  | M00054949A:E03 | ES 117 | M00055818A:F12 |
| ES 93  | M00054949C:A07 | ES 117 | M00055818D:E10 |
| ES 93  | M00054950D:G06 | ES 117 | M00055820A:E08 |
| ES 93  | M00054952A:F01 | ES 117 | M00055820B:E05 |
| ES 93  | M00054952C:H06 | ES 117 | M00055820C:C08 |
| ES 93  | M00054953D:G10 | ES 117 | M00055820D:G10 |
| ES 93  | M00054954B:C03 | ES 117 | M00055821A:A06 |
| ES 93  | M00054954D:F01 | ES 117 | M00055821A:G12 |
| ES 93  | M00054957A:B02 | ES 117 | M00055822B:H04 |
| ES 93  | M00054959C:C11 | ES 117 | M00055823B:D03 |
| ES 93  | M00054963C:H11 | ES 117 | M00055823C:D11 |
| ES 93  | M00054963D:H04 | ES 117 | M00055825B:E03 |
| ES 93  | M00054964A:H11 | ES 117 | M00055826A:F04 |
| ES 93  | M00054965B:H02 | ES 117 | M00055827B:D02 |
| ES 93  | M00054970D:G03 | ES 117 | M00055827D:A02 |
| ES 93  | M00054973B:A10 | ES 117 | M00055827D:C06 |
| ES 93  | M00054975C:C04 | ES 117 | M00055827D:E05 |
| ES 93  | M00054980D:C02 | ES 117 | M00055829C:G09 |
| ES 93  | M00054981C:E11 | ES 117 | M00055830A:G10 |
| ES 93  | M00054981D:C06 | ES 117 | M00055832D:E12 |
| ES 93  | M00054984D:B12 | ES 117 | M00055833D:A11 |
| ES 93  | M00054984D:C07 | ES 117 | M00055838B:D12 |
| ES 93  | M00054985C:F07 | ES 117 | M00055838B:G12 |
| ES 93  | M00054987D:C02 | ES 117 | M00055839A:F09 |
| ES 93  | M00054988C:G02 | ES 117 | M00055839B:A10 |



| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 93   | M00054995A:C10 | ES 117 | M00055840C:D06 |
| ES 93   | M00054996C:B11 | ES 117 | M00055841A:B09 |
| ES 93   | M00054996C:C09 | ES 117 | M00055841C:D05 |
| ES 93   | M00054997C:B12 | ES 118 | M00055848C:H06 |
| ES 93   | M00054997C:H03 | ES 118 | M00055849C:D08 |
| ES 93   | M00055000C:F04 | ES 118 | M00055850B:F03 |
| ES 93   | M00055002D:E04 | ES 118 | M00055851A:G11 |
| ES 93   | M00055005B:H11 | ES 118 | M00055851C:F12 |
| ES 93   | M00055005D:B08 | ES 118 | M00055851C:F12 |
| ES 93   | M00055008A:B08 | ES 118 | M00055852A:A07 |
| ES 93   | M00055008D:B09 | ES 118 | M00055854A:E04 |
| ES 93   | M00055011C:E04 | ES 118 | M00055856A:F04 |
| ES 93   | M00055017A:A11 | ES 118 | M00055856C:F07 |
| ES 93   | M00055021D:D11 | ES 118 | M00055860D:A08 |
| ES 93   | M00055022A:H04 | ES 118 | M00055861A:D03 |
| ES 93   | M00055027B:D07 | ES 118 | M00055864A:E11 |
| ES 93   | M00055027D:F08 | ES 118 | M00055864A:H02 |
| ES 93   | M00055032D:A06 | ES 118 | M00055866D:A02 |
| ES 93   | M00055034C:G01 | ES 118 | M00055868A:F06 |
| ES 93   | M00055034D:H01 | ES 118 | M00055868D:D03 |
| ES 93   | M00055037A:E10 | ES 118 | M00055868D:F09 |
| ES 93   | M00055039A:G01 | ES 118 | M00055869B:A06 |
| ES 93   | M00055039C:E02 | ES 118 | M00055871A:F05 |
| ES 93   | M00055041A:E02 | ES 118 | M00055871D:G06 |
| ES 94   | M00055042A:B01 | ES 118 | M00055872D:D12 |
| ES 94   | M00055046B:C07 | ES 118 | M00055873A:B11 |
| ES 94   | M00055046C:E11 | ES 118 | M00055873B:E03 |
| ES 94   | M00055050C:G04 | ES 118 | M00055874B:B06 |
| ES 94   | M00055053C:B03 | ES 118 | M00055874D:D03 |
| ES 94   | M00055054A:C02 | ES 118 | M00055879B:E11 |
| ES 94   | M00055056D:B06 | ES 118 | M00055879C:D04 |
| ES 94   | M00055057A:F03 | ES 118 | M00055880D:F12 |
| ES 94   | M00055063D:G01 | ES 118 | M00055882C:A06 |
| ES 94   | M00055064A:E12 | ES 118 | M00055882C:A09 |
| ES 94   | M00055071B:A02 | ES 118 | M00055884A:E10 |
| ES 94   | M00055073C:H12 | ES 118 | M00055884C:B01 |
| ES 94   | M00055075B:H05 | ES 118 | M00055884D:A05 |
| ES 94   | M00055077C:F11 | ES 118 | M00055886D:G09 |
| ES 94   | M00055085A:A10 | ES 118 | M00055887A:C06 |
| ES 94   | M00055087A:A10 | ES 118 | M00055887A:F07 |
| ES 94   | M00055088A:A12 | ES 118 | M00055887B:E04 |
| ES 94   | M00055088C:E09 | ES 118 | M00055888B:B05 |
| ES 94   | M00055093B:H05 | ES 118 | M00055889C:H12 |
| ES 94   | M00055094B:H09 | ES 118 | M00055891B:A04 |
| ES 94   | M00055097A:G06 | ES 118 | M00055893B:C05 |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 94   | M00055100B:D08 | ES 118 | M00055896C:F11 |
| ES 94   | M00055104C:B12 | ES 118 | M00055900B:B05 |
| ES 94   | M00055106A:D07 | ES 118 | M00055906B:D10 |
| ES 94   | M00055111B:D03 | ES 118 | M00055906C:F12 |
| ES 94   | M00055112A:C03 | ES 118 | M00055908B:H11 |
| ES 94   | M00055113B:A11 | ES 118 | M00055908C:E12 |
| ES 94   | M00055114D:A11 | ES 122 | M00056209B:F12 |
| ES 94   | M00055115A:E05 | ES 122 | M00056210B:E03 |
| ES 94   | M00055116B:B02 | ES 122 | M00056212C:G01 |
| ES 94   | M00055117C:C03 | ES 122 | M00056213A:A04 |
| ES 94   | M00055121D:C07 | ES 122 | M00056215A:E03 |
| ES 94   | M00055125B:E06 | ES 122 | M00056218C:G03 |
| ES 94   | M00055125B:F01 | ES 122 | M00056220D:D02 |
| ES 94   | M00055128D:B10 | ES 122 | M00056220D:D09 |
| ES 94   | M00055130D:G01 | ES 122 | M00056221D:E05 |
| ES 94   | M00055131C:B10 | ES 122 | M00056222C:F02 |
| ES 94   | M00055134B:E03 | ES 122 | M00056223B:G03 |
| ES 94   | M00055134B:H02 | ES 122 | M00056224C:B10 |
| ES 94   | M00055134D:B03 | ES 122 | M00056224D:E08 |
| ES 94   | M00055137C:C04 | ES 122 | M00056225D:G09 |
| ES 94   | M00055145A:F07 | ES 122 | M00056226C:F12 |
| ES 94   | M00055148D:D11 | ES 122 | M00056228B:A07 |
| ES 94   | M00055154C:F04 | ES 122 | M00056231B:G09 |
| ES 94   | M00055157A:C11 | ES 122 | M00056231B:G09 |
| ES 94   | M00055161D:A11 | ES 122 | M00056232C:E06 |
| ES 94   | M00055162A:F06 | ES 122 | M00056232D:G12 |
| ES 94   | M00055163A:C02 | ES 122 | M00056233D:F03 |
| ES 95   | M00055170A:F01 | ES 122 | M00056236D:G01 |
| ES 95   | M00055170D:E02 | ES 122 | M00056238B:E07 |
| ES 95   | M00055172D:D04 | ES 122 | M00056243C:G10 |
| ES 95   | M00055179C:D02 | ES 122 | M00056244A:B08 |
| ES 95   | M00055181A:E01 | ES 122 | M00056244B:C07 |
| ES 95   | M00055182B:C07 | ES 122 | M00056246A:B03 |
| ES 95   | M00055185C:B01 | ES 122 | M00056246C:G07 |
| ES 95   | M00055194D:C05 | ES 122 | M00056247A:G06 |
| ES 95   | M00055196B:A09 | ES 122 | M00056248A:A09 |
| ES 95   | M00055198D:F07 | ES 122 | M00056250B:F01 |
| ES 95   | M00055198D:G07 | ES 122 | M00056251C:A06 |
| ES 95   | M00055201D:A03 | ES 122 | M00056252B:H08 |
| ES 95   | M00055201D:B07 | ES 122 | M00056252D:E11 |
| ES 95   | M00055203B:H02 | ES 122 | M00056253A:F12 |
| ES 95   | M00055206A:H04 | ES 122 | M00056253D:H06 |
| ES 95   | M00055207D:A04 | ES 122 | M00056254A:H02 |
| ES 95   | M00055209D:A08 | ES 122 | M00056256C:H11 |
| ES 95   | M00055209D:D10 | ES 122 | M00056262B:B08 |

| Table 8 |                |        |                |
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| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 95   | M00055216A:A03 | ES 122 | M00056263D:C01 |
| ES 95   | M00055216A:A03 | ES 122 | M00056267A:E02 |
| ES 95   | M00055222D:H05 | ES 122 | M00056267C:B02 |
| ES 95   | M00055227A:H09 | ES 122 | M00056268B:B04 |
| ES 95   | M00055227D:E02 | ES 122 | M00056268C:D01 |
| ES 95   | M00055227D:E07 | ES 122 | M00056273B:A01 |
| ES 95   | M00055231A:D10 | ES 122 | M00056281D:E04 |
| ES 95   | M00055242A:E06 | ES 122 | M00056282A:F11 |
| ES 95   | M00055242B:A01 | ES 122 | M00056282B:D04 |
| ES 95   | M00055242D:D04 | ES 123 | M00056282D:C01 |
| ES 95   | M00055243A:F04 | ES 123 | M00056282D:H09 |
| ES 95   | M00055243A:G01 | ES 123 | M00056283A:E02 |
| ES 95   | M00055245B:A09 | ES 123 | M00056283A:E02 |
| ES 95   | M00055247B:A11 | ES 123 | M00056283D:C03 |
| ES 95   | M00055252A:C02 | ES 123 | M00056286A:E08 |
| ES 95   | M00055259D:F04 | ES 123 | M00056286D:A12 |
| ES 95   | M00055260B:A05 | ES 123 | M00056290B:F05 |
| ES 95   | M00055260C:F12 | ES 123 | M00056290D:E08 |
| ES 95   | M00055262C:B11 | ES 123 | M00056290D:H02 |
| ES 95   | M00055263A:G09 | ES 123 | M00056291B:G01 |
| ES 95   | M00055271D:C05 | ES 123 | M00056291D:B05 |
| ES 95   | M00055273B:C05 | ES 123 | M00056292B:E05 |
| ES 95   | M00055274C:F02 | ES 123 | M00056293B:E08 |
| ES 95   | M00055279B:G08 | ES 123 | M00056293C:F05 |
| ES 95   | M00055279C:E12 | ES 123 | M00056293C:G09 |
| ES 95   | M00055283B:F05 | ES 123 | M00056295A:F07 |
| ES 95   | M00055283C:H02 | ES 123 | M00056295C:D06 |
| ES 95   | M00055289B:D02 | ES 123 | M00056300A:A05 |
| ES 95   | M00055294B:D04 | ES 123 | M00056302B:F12 |
| ES 96   | M00055302D:F02 | ES 123 | M00056303A:C03 |
| ES 96   | M00055306A:G09 | ES 123 | M00056303C:B04 |
| ES 96   | M00055319B:A01 | ES 123 | M00056304D:G11 |
| ES 96   | M00055322B:E01 | ES 123 | M00056307A:H12 |
| ES 96   | M00055324C:H10 | ES 123 | M00056310B:G06 |
| ES 96   | M00055325C:B12 | ES 123 | M00056312B:A04 |
| ES 96   | M00055327D:H08 | ES 123 | M00056312D:C03 |
| ES 96   | M00055332C:G11 | ES 123 | M00056313C:F07 |
| ES 96   | M00055334C:H09 | ES 123 | M00056319C:G01 |
| ES 96   | M00055335A:H03 | ES 123 | M00056320C:H02 |
| ES 96   | M00055338B:H07 | ES 123 | M00056323A:H10 |
| ES 96   | M00055344C:H09 | ES 123 | M00056323A:H10 |
| ES 96   | M00055345C:H11 | ES 123 | M00056323C:C12 |
| ES 96   | M00055346B:D02 | ES 123 | M00056323D:A07 |
| ES 96   | M00055350A:F01 | ES 123 | M00056324B:D02 |
| ES 96   | M00055356C:C06 | ES 123 | M00056330C:D03 |

| ES No. | Clone Name     | ES No. | Clone Name     |
|--------|----------------|--------|----------------|
| ES 96  | M00055358B:C01 | ES 123 | M00056331B:D01 |
| ES 96  | M00055361D:H01 | ES 123 | M00056338B:B06 |
| ES 96  | M00055363D:G12 | ES 123 | M00056338C:B10 |
| ES 96  | M00055364D:E01 | ES 123 | M00056342A:G05 |
| ES 96  | M00055368B:C10 | ES 123 | M00056342B:G03 |
| ES 96  | M00055368C:B06 | ES 123 | M00056342C:F11 |
| ES 96  | M00055371B:F01 | ES 123 | M00056344A:G03 |
| ES 96  | M00055373D:D10 | ES 123 | M00056345D:E03 |
| ES 96  | M00055374A:A08 | ES 123 | M00056437C:H07 |
| ES 96  | M00055376B:B01 | ES 123 | M00056438C:A06 |
| ES 96  | M00055379D:C08 | ES 123 | M00056447B:A04 |
| ES 96  | M00055381B:E09 | ES 123 | M00056448B:C09 |
| ES 96  | M00055383B:B04 | ES 124 | M00056456C:A09 |
| ES 96  | M00055383B:B04 | ES 124 | M00056456C:F02 |
| ES 96  | M00055384D:A03 | ES 124 | M00056456D:F01 |
| ES 96  | M00055385C:G06 | ES 124 | M00056459A:C07 |
| ES 96  | M00055388A:G08 | ES 124 | M00056459A:C07 |
| ES 96  | M00055388A:H08 | ES 124 | M00056459A:D07 |
| ES 96  | M00055390B:D08 | ES 124 | M00056460A:G11 |
| ES 96  | M00055391A:G08 | ES 124 | M00056466A:A03 |
| ES 96  | M00055391C:G06 | ES 124 | M00056466A:E02 |
| ES 96  | M00055395A:C02 | ES 124 | M00056467C:E07 |
| ES 96  | M00055396A:G07 | ES 124 | M00056475B:C12 |
| ES 96  | M00055404D:C07 | ES 124 | M00056475C:F01 |
| ES 96  | M00055405A:D09 | ES 124 | M00056475C:F02 |
| ES 96  | M00055405B:H05 | ES 124 | M00042432C:H10 |
| ES 96  | M00055405D:G07 | ES 124 | M00042440A:E05 |
| ES 96  | M00055406B:D05 | ES 124 | M00042461A:A10 |
| ES 96  | M00055408B:E09 | ES 124 | M00042463A:F09 |
| ES 96  | M00055408D:F03 | ES 124 | M00042466D:H06 |
| ES 96  | M00055413A:B07 | ES 124 | M00042469D:H04 |
| ES 96  | M00055414C:A11 | ES 124 | M00042511A:A04 |
| ES 97  | M00055415B:H11 | ES 124 | M00042513D:A12 |
| ES 97  | M00055417A:G08 | ES 124 | M00042515C:A10 |
| ES 97  | M00055419D:G01 | ES 124 | M00042756B:B01 |
| ES 97  | M00055420A:E06 | ES 124 | M00042758D:H12 |
| ES 97  | M00055420B:F10 | ES 124 | M00042760B:C07 |
| ES 97  | M00055420D:G04 | ES 124 | M00042764B:B04 |
| ES 97  | M00055421B:D04 | ES 124 | M00042767D:D02 |
| ES 97  | M00055421C:C11 | ES 124 | M00042770B:B12 |
| ES 97  | M00055423A:A10 | ES 124 | M00042771B:A03 |
| ES 97  | M00055423A:G08 | ES 124 | M00042777A:D06 |
| ES 97  | M00055423C:H10 | ES 124 | M00042781C:A06 |
| ES 97  | M00055425D:C05 | ES 124 | M00042783C:A03 |
| ES 97  | M00055472A:F02 | ES 124 | M00042787C:E09 |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 97   | M00055472B:H03 | ES 124 | M00042792C:G10 |
| ES 97   | M00055475D:G08 | ES 124 | M00042792D:F04 |
| ES 97   | M00055479A:G02 | ES 124 | M00042793B:G06 |
| ES 97   | M00055479C:C12 | ES 124 | M00042800A:A03 |
| ES 97   | M00055480C:H10 | ES 124 | M00042801B:B06 |
| ES 97   | M00055482D:A01 | ES 124 | M00042802C:G11 |
| ES 97   | M00055484A:G07 | ES 124 | M00042805A:E06 |
| ES 97   | M00055485A:C09 | ES 124 | M00042805D:H08 |
| ES 97   | M00055487B:F06 | ES 124 | M00042814D:B11 |
| ES 97   | M00001340A:E01 | ES 124 | M00042816B:F04 |
| ES 97   | M00001470C:G01 | ES 124 | M00042818A:E12 |
| ES 97   | M00001470C:G01 | ES 124 | M00042823B:G04 |
| ES 97   | M00001491B:C08 | ES 124 | M00042826B:C05 |
| ES 97   | M00001537D:F10 | ES 124 | M00042826D:C03 |
| ES 97   | M00001537D:F10 | ES 124 | M00042833D:G01 |
| ES 97   | M00001561B:G01 | ES 125 | M00042834C:B06 |
| ES 97   | M00001625A:B08 | ES 125 | M00042835C:C01 |
| ES 97   | M00001637A:D09 | ES 125 | M00042835D:D02 |
| ES 97   | M00003792B:A11 | ES 125 | M00042838D:E11 |
| ES 97   | M00003794C:D07 | ES 125 | M00042842A:C01 |
| ES 97   | M00003804D:A09 | ES 125 | M00042842D:E08 |
| ES 97   | M00003922B:H03 | ES 125 | M00042844C:C12 |
| ES 97   | M00003948A:B12 | ES 125 | M00042846C:D09 |
| ES 97   | M00003986D:G12 | ES 125 | M00042848D:G12 |
| ES 97   | M00003986D:G12 | ES 125 | M00042849D:F11 |
| ES 97   | M00004054C:G05 | ES 125 | M00042850B:C04 |
| ES 97   | M00004066C:D02 | ES 125 | M00042850C:C10 |
| ES 97   | M00004080A:A05 | ES 125 | M00042853A:G03 |
| ES 97   | M00004087D:B11 | ES 125 | M00042853D:A04 |
| ES 97   | M00004093D:C10 | ES 125 | M00042855A:B09 |
| ES 97   | M00004167C:D11 | ES 125 | M00042856C:F07 |
| ES 97   | M00004167C:D11 | ES 125 | M00042864A:E05 |
| ES 97   | M00004198B:A11 | ES 125 | M00042867D:H01 |
| ES 97   | M00004296D:G11 | ES 125 | M00042869C:E06 |
| ES 98   | M00004304A:D07 | ES 125 | M00042875C:E04 |
| ES 98   | M00004842C:B07 | ES 125 | M00042879B:F09 |
| ES 98   | M00004850C:G05 | ES 125 | M00056346C:C12 |
| ES 98   | M00004852D:A04 | ES 125 | M00056351B:D06 |
| ES 98   | M00004868B:D12 | ES 125 | M00056356B:F04 |
| ES 98   | M00004869D:D06 | ES 125 | M00056359C:A11 |
| ES 98   | M00004971B:G04 | ES 125 | M00056362D:G05 |
| ES 98   | M00004972C:E01 | ES 125 | M00056363A:B06 |
| ES 98   | M00005000B:H08 | ES 125 | M00056368C:F04 |
| ES 98   | M00005019D:D02 | ES 125 | M00056369B:D12 |
| ES 98   | M00005293B:D06 | ES 125 | M00056370B:G02 |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 98   | M00005309D:E05 | ES 125 | M00056371B:F12 |
| ES 98   | M00005312A:D10 | ES 125 | M00056372B:C10 |
| ES 98   | M00005313C:B02 | ES 125 | M00056374B:H02 |
| ES 98   | M00005359A:A06 | ES 125 | M00056382C:H02 |
| ES 98   | M00005373D:H06 | ES 125 | M00056383A:C10 |
| ES 98   | M00005385C:A10 | ES 125 | M00056410B:E04 |
| ES 98   | M00005389C:C11 | ES 125 | M00056411C:E04 |
| ES 98   | M00005395A:D09 | ES 125 | M00056414B:A05 |
| ES 98   | M00005406C:A11 | ES 125 | M00056416C:B12 |
| ES 98   | M00005407B:E12 | ES 125 | M00056420C:D07 |
| ES 98   | M00005411C:C07 | ES 125 | M00056421A:F12 |
| ES 98   | M00005413B:F03 | ES 125 | M00056424A:F12 |
| ES 98   | M00005415C:F12 | ES 125 | M00056424B:H06 |
| ES 98   | M00005420B:C01 | ES 125 | M00056424D:A10 |
| ES 98   | M00005438B:A06 | ES 125 | M00056425A:H08 |
| ES 98   | M00005445C:A02 | ES 125 | M00056425D:B03 |
| ES 98   | M00005447C:D01 | ES 125 | M00056434A:C08 |
| ES 98   | M00005449C:E10 | ES 125 | M00056434D:E07 |
| ES 98   | M00005454B:C03 | ES 126 | M00056480B:C12 |
| ES 98   | M00005459B:B01 | ES 126 | M00056480D:A10 |
| ES 98   | M00005469B:A07 | ES 126 | M00056481A:F02 |
| ES 98   | M00005481D:C06 | ES 126 | M00056483D:F06 |
| ES 98   | M00005485B:B05 | ES 126 | M00056484B:G02 |
| ES 98   | M00005485D:A09 | ES 126 | M00056485B:B12 |
| ES 98   | M00005491B:H12 | ES 126 | M00056490D:E02 |
| ES 98   | M00005491D:B03 | ES 126 | M00056491D:G08 |
| ES 98   | M00005500B:E03 | ES 126 | M00056496B:A01 |
| ES 98   | M00005501B:E05 | ES 126 | M00056496C:H09 |
| ES 98   | M00005501D:G09 | ES 126 | M00056499C:F05 |
| ES 98   | M00005513B:F09 | ES 126 | M00056501C:H07 |
| ES 98   | M00005514C:A06 | ES 126 | M00056503B:G11 |
| ES 98   | M00005515B:H04 | ES 126 | M00056503B:G11 |
| ES 98   | M00005516D:H06 | ES 126 | M00056505B:H02 |
| ES 98   | M00005517B:F04 | ES 126 | M00056505D:D07 |
| ES 98   | M00005520C:E12 | ES 126 | M00056506C:G12 |
| ES 98   | M00005530C:A07 | ES 126 | M00056507D:B10 |
| ES 98   | M00005545B:A08 | ES 126 | M00056508B:B10 |
| ES 99   | M00005546A:G02 | ES 126 | M00056511A:H12 |
| ES 99   | M00005548A:A02 | ES 126 | M00056512B:C06 |
| ES 99   | M00005563C:B12 | ES 126 | M00056512C:E09 |
| ES 99   | M00005565A:F05 | ES 126 | M00056512D:C12 |
| ES 99   | M00005568C:B09 | ES 126 | M00056514B:E08 |
| ES 99   | M00007926A:A07 | ES 126 | M00056514C:G01 |
| ES 99   | M00007926D:A05 | ES 126 | M00056515C:C05 |
| ES 99   | M00007927C:C01 | ES 126 | M00056517B:G03 |

| ES No. | Clone Name     | ES No. | Clone Name     |
|--------|----------------|--------|----------------|
| ES 99  | M00007931A:A10 | ES 126 | M00056519C:H01 |
| ES 99  | M00007935D:A05 | ES 126 | M00056526C:E11 |
| ES 99  | M00007936D:B09 | ES 126 | M00056529D:F12 |
| ES 99  | M00007936D:B09 | ES 126 | M00056529D:H09 |
| ES 99  | M00007939B:A03 | ES 126 | M00056530A:D01 |
| ES 99  | M00007943A:C02 | ES 126 | M00056532B:G06 |
| ES 99  | M00007951C:A05 | ES 126 | M00056534A:D11 |
| ES 99  | M00007953B:A01 | ES 126 | M00056537B:H05 |
| ES 99  | M00007953D:H09 | ES 126 | M00056537C:A09 |
| ES 99  | M00007954C:B04 | ES 126 | M00056541B:A08 |
| ES 99  | M00007961B:F05 | ES 126 | M00056547A:C04 |
| ES 99  | M00007964B:G01 | ES 126 | M00056548A:C11 |
| ES 99  | M00007965A:G10 | ES 126 | M00056551A:F02 |
| ES 99  | M00007965B:C03 | ES 126 | M00056552A:A10 |
| ES 99  | M00007965B:C03 | ES 126 | M00056552D:B10 |
| ES 99  | M00007981D:B04 | ES 126 | M00056555A:F09 |
| ES 99  | M00007982A:F11 | ES 126 | M00056556C:G01 |
| ES 99  | M00007983B:D03 | ES 126 | M00056557C:D02 |
| ES 99  | M00007983D:H06 | ES 126 | M00056561C:D08 |
| ES 99  | M00007990D:D03 | ES 126 | M00056564C:E09 |
| ES 99  | M00007991D:G01 | ES 126 | M00056566C:H01 |
| ES 99  | M00007992D:G08 | ES 127 | M00056574B:A07 |
| ES 99  | M00007994A:C11 | ES 127 | M00056580B:F10 |
| ES 99  | M00007994D:A05 | ES 127 | M00056591C:E03 |
| ES 99  | M00007998C:F07 | ES 127 | M00056592A:F04 |
| ES 99  | M00005589C:F07 | ES 127 | M00056592C:C03 |
| ES 99  | M00005610D:B11 | ES 127 | M00056592D:D07 |
| ES 99  | M00005619B:A09 | ES 127 | M00056592D:D07 |
| ES 99  | M00005621A:H08 | ES 127 | M00056593B:E05 |
| ES 99  | M00005627B:B10 | ES 127 | M00056594C:C06 |
| ES 99  | M00005628B:C10 | ES 127 | M00056594C:C10 |
| ES 99  | M00005632A:H02 | ES 127 | M00056595A:A02 |
| ES 99  | M00005650C:A06 | ES 127 | M00056595A:C07 |
| ES 99  | M00005650C:D04 | ES 127 | M00056595B:F02 |
| ES 99  | M00005655B:F08 | ES 127 | M00056596A:E02 |
| ES 99  | M00005675A:G02 | ES 127 | M00056596C:E06 |
| ES 99  | M00005685D:D12 | ES 127 | M00056596C:H08 |
| ES 99  | M00005704C:D10 | ES 127 | M00056597A:F07 |
| ES 99  | M00005708B:B07 | ES 127 | M00056597D:C02 |
| ES 100 | M00042455C:D11 | ES 127 | M00056599D:D11 |
| ES 100 | M00054826A:B05 | ES 127 | M00056600D:H07 |
| ES 100 | M00055281A:E08 | ES 127 | M00056603C:D01 |
| ES 100 | M00005657D:A12 | ES 127 | M00056608C:E04 |
| ES 100 | M00005710A:D01 | ES 127 | M00056610B:H12 |
| ES 100 | M00005765D:F07 | ES 127 | M00056613A:A05 |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 100  | M00005766C:F10 | ES 127 | M00056616B:C08 |
| ES 100  | M00005769B:A03 | ES 127 | M00056616D:A10 |
| ES 100  | M00005782A:B10 | ES 127 | M00056617B:H06 |
| ES 100  | M00005800D:D11 | ES 127 | M00056618A:B02 |
| ES 100  | M00005802B:H10 | ES 127 | M00056618B:F06 |
| ES 100  | M00005810B:F07 | ES 127 | M00056618D:F11 |
| ES 100  | M00005810B:G10 | ES 127 | M00056620D:E12 |
| ES 100  | M00005813B:E10 | ES 127 | M00056622D:C03 |
| ES 100  | M00005818D:B09 | ES 127 | M00056624D:H05 |
| ES 100  | M00005819C:B11 | ES 127 | M00056628C:F01 |
| ES 100  | M00005826D:G10 | ES 127 | M00056631B:G05 |
| ES 100  | M00005830C:D10 | ES 127 | M00056631D:C08 |
| ES 100  | M00006576A:B04 | ES 127 | M00056631D:D03 |
| ES 100  | M00006583B:H03 | ES 127 | M00056633B:B07 |
| ES 100  | M00006587B:A08 | ES 127 | M00056635A:A11 |
| ES 100  | M00006588A:H06 | ES 127 | M00056635A:E09 |
| ES 100  | M00006590A:C10 | ES 127 | M00056638A:D08 |
| ES 100  | M00006610C:D08 | ES 127 | M00056638B:B01 |
| ES 100  | M00006630D:C11 | ES 127 | M00056639A:E02 |
| ES 100  | M00006638A:G02 | ES 127 | M00056643D:G06 |
| ES 100  | M00006641C:H03 | ES 127 | M00056645C:B11 |
| ES 100  | M00006641C:H03 | ES 127 | M00056645D:F06 |
| ES 100  | M00006648B:A05 | ES 127 | M00056646C:C02 |
| ES 100  | M00006649D:B11 | ES 127 | M00056646D:G05 |
| ES 100  | M00006650A:A03 | ES 128 | M00056652D:F04 |
| ES 100  | M00006650D:D05 | ES 128 | M00056656C:H03 |
| ES 100  | M00006664A:B09 | ES 128 | M00056659C:G08 |
| ES 100  | M00006679D:C04 | ES 128 | M00056661B:A09 |
| ES 100  | M00006686B:B07 | ES 128 | M00056661D:E05 |
| ES 100  | M00006695D:H08 | ES 128 | M00056662B:F03 |
| ES 100  | M00006695D:H08 | ES 128 | M00056664B:G06 |
| ES 100  | M00006704C:G06 | ES 128 | M00056664C:B07 |
| ES 100  | M00006705B:A09 | ES 128 | M00056665B:A11 |
| ES 100  | M00006705C:G09 | ES 128 | M00056665C:E05 |
| ES 100  | M00006712C:F02 | ES 128 | M00056666A:C08 |
| ES 100  | M00006719A:E12 | ES 128 | M00056669B:G07 |
| ES 100  | M00006719A:H07 | ES 128 | M00056670A:A11 |
| ES 100  | M00006731B:B02 | ES 128 | M00056673D:E06 |
| ES 100  | M00006731B:C08 | ES 128 | M00056674B:E05 |
| ES 100  | M00006731B:D03 | ES 128 | M00056674D:H04 |
| ES 100  | M00006731C:E01 | ES 128 | M00056682D:F10 |
| ES 100  | M00006734C:A08 | ES 128 | M00056683C:B09 |
| ES 100  | M00006737D:A11 | ES 128 | M00056684D:A05 |
| ES 100  | M00006740B:G01 | ES 128 | M00056684D:F11 |
| ES 100  | M00006745C:A02 | ES 128 | M00056688B:F05 |



| ES No. | Clone Name     | ES No. | Clone Name     |
|--------|----------------|--------|----------------|
| ES 100 | M00006745D:D02 | ES 128 | M00056690C:F09 |
| ES 101 | M00006746C:B06 | ES 128 | M00056693C:C08 |
| ES 101 | M00006746C:B06 | ES 128 | M00056695A:H09 |
| ES 101 | M00006755D:A04 | ES 128 | M00056697C:E03 |
| ES 101 | M00006756B:F08 | ES 128 | M00056698C:E12 |
| ES 101 | M00006761C:C05 | ES 128 | M00056701B:E08 |
| ES 101 | M00006761C:D09 | ES 128 | M00056703A:D06 |
| ES 101 | M00006783B:F07 | ES 128 | M00056705D:E07 |
| ES 101 | M00006789D:A11 | ES 128 | M00056707B:E02 |
| ES 101 | M00006795D:A03 | ES 128 | M00056707D:D05 |
| ES 101 | M00006795D:D07 | ES 128 | M00056708C:C06 |
| ES 101 | M00006803A:C07 | ES 128 | M00056708D:D11 |
| ES 101 | M00006806B:C09 | ES 128 | M00056709A:A05 |
| ES 101 | M00006807A:G12 | ES 128 | M00056710A:C01 |
| ES 101 | M00006810A:D11 | ES 128 | M00056710B:F05 |
| ES 101 | M00006811D:D12 | ES 128 | M00056710B:H09 |
| ES 101 | M00006819B:B05 | ES 128 | M00056710D:F07 |
| ES 101 | M00006821D:B01 | ES 128 | M00056711A:C01 |
| ES 101 | M00006822C:A09 | ES 128 | M00056711A:F05 |
| ES 101 | M00006822D:E09 | ES 128 | M00056711A:F05 |
| ES 101 | M00006831D:H05 | ES 128 | M00056711D:A05 |
| ES 101 | M00006846A:D03 | ES 128 | M00056712C:A07 |
| ES 101 | M00006852A:C07 | ES 128 | M00056712C:B06 |
| ES 101 | M00006859B:D04 | ES 128 | M00056713D:G08 |
| ES 101 | M00006861B:A08 | ES 128 | M00056714C:H06 |
| ES 101 | M00006867C:F12 | ES 128 | M00056715A:D10 |
| ES 101 | M00006871D:F01 | ES 128 | M00056715A:E04 |
| ES 101 | M00006873C:E12 | ES 129 | M00056715A:G01 |
| ES 101 | M00006873D:B01 | ES 129 | M00056715B:C01 |
| ES 101 | M00006885C:G11 | ES 129 | M00056715D:C04 |
| ES 101 | M00006888A:G05 | ES 129 | M00056715D:E08 |
| ES 101 | M00006892B:F09 | ES 129 | M00056717B:C04 |
| ES 101 | M00006894D:A03 | ES 129 | M00056718C:B01 |
| ES 101 | M00006917B:A05 | ES 129 | M00056718C:G02 |
| ES 101 | M00006917C:A04 | ES 129 | M00056719A:D06 |
| ES 101 | M00006917D:D08 | ES 129 | M00056719A:F12 |
| ES 101 | M00006921A:H08 | ES 129 | M00056719B:A09 |
| ES 101 | M00006923B:H05 | ES 129 | M00056721A:F07 |
| ES 101 | M00006928A:A04 | ES 129 | M00056722A:G01 |
| ES 101 | M00006928B:D01 | ES 129 | M00056723B:D10 |
| ES 101 | M00006928B:D01 | ES 129 | M00056723C:C11 |
| ES 101 | M00006937D:F03 | ES 129 | M00056724D:E11 |
| ES 101 | M00006964A:A11 | ES 129 | M00056726C:G05 |
| ES 101 | M00006967B:B05 | ES 129 | M00056728A:H05 |
| ES 101 | M00006976B:D05 | ES 129 | M00056728B:D05 |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 101  | M00006979D:B10 | ES 129 | M00056729B:D04 |
| ES 101  | M00006987A:G11 | ES 129 | M00056729C:H12 |
| ES 101  | M00006989C:E04 | ES 129 | M00056733C:D09 |
| ES 101  | M00006990D:E02 | ES 129 | M00056735D:B08 |
| ES 102  | M00006996C:F10 | ES 129 | M00056737B:G07 |
| ES 102  | M00006997A:A03 | ES 129 | M00056739A:D11 |
| ES 102  | M00007006B:A01 | ES 129 | M00056739B:D08 |
| ES 102  | M00007007B:H05 | ES 129 | M00056740C:B05 |
| ES 102  | M00007028C:C04 | ES 129 | M00056741B:C06 |
| ES 102  | M00007028C:C04 | ES 129 | M00056746D:A02 |
| ES 102  | M00007032C:F09 | ES 129 | M00056746D:D06 |
| ES 102  | M00007034B:B06 | ES 129 | M00056747A:D05 |
| ES 102  | M00007035C:E06 | ES 129 | M00056752A:E01 |
| ES 102  | M00007065C:F11 | ES 129 | M00056753D:A10 |
| ES 102  | M00007084B:G04 | ES 129 | M00056754A:A04 |
| ES 102  | M00007092D:F03 | ES 129 | M00056754B:D09 |
| ES 102  | M00007096A:E02 | ES 129 | M00056754B:H04 |
| ES 102  | M00007096C:E01 | ES 129 | M00056754D:A05 |
| ES 102  | M00007096D:H02 | ES 129 | M00056756B:A05 |
| ES 102  | M00007097A:B04 | ES 129 | M00056756D:B08 |
| ES 102  | M00007097D:D07 | ES 129 | M00056757B:F03 |
| ES 102  | M00007098A:C05 | ES 129 | M00056758B:C05 |
| ES 102  | M00007105D:C12 | ES 129 | M00056759A:F11 |
| ES 102  | M00007108A:D01 | ES 129 | M00056759B:G03 |
| ES 102  | M00007110C:F03 | ES 129 | M00056760D:A04 |
| ES 102  | M00007112A:A12 | ES 129 | M00056761A:F05 |
| ES 102  | M00007117D:H03 | ES 129 | M00056762C:E05 |
| ES 102  | M00007121C:G08 | ES 129 | M00056763C:D05 |
| ES 102  | M00007128B:G06 | ES 129 | M00056764A:E08 |
| ES 102  | M00007129A:F08 | ES 129 | M00056765A:A10 |
| ES 102  | M00007131C:A01 | ES 130 | M00056765C:E12 |
| ES 102  | M00007135D:B11 | ES 130 | M00056765D:D10 |
| ES 102  | M00007135D:B11 | ES 130 | M00056766B:A10 |
| ES 102  | M00007136C:C05 | ES 130 | M00056771C:F12 |
| ES 102  | M00007146D:F11 | ES 130 | M00056771D:C12 |
| ES 102  | M00007151A:B11 | ES 130 | M00056772D:A04 |
| ES 102  | M00007156A:E06 | ES 130 | M00056772D:A04 |
| ES 102  | M00007156D:F08 | ES 130 | M00056772D:E08 |
| ES 102  | M00007166A:E06 | ES 130 | M00056773A:H11 |
| ES 102  | M00007172B:C03 | ES 130 | M00056774B:A02 |
| ES 102  | M00007174C:D06 | ES 130 | M00056775D:A07 |
| ES 102  | M00007177A:E11 | ES 130 | M00056775D:C01 |
| ES 102  | M00007178C:D03 | ES 130 | M00056775D:C08 |
| ES 102  | M00007192A:E06 | ES 130 | M00056776D:A06 |
| ES 102  | M00007194A:E06 | ES 130 | M00056776D:D09 |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 102  | M00007194B:B04 | ES 130 | M00056777B:C03 |
| ES 102  | M00007204C:G12 | ES 130 | M00056777D:B02 |
| ES 102  | M00007204D:D01 | ES 130 | M00056777D:F07 |
| ES 102  | M00008014A:B01 | ES 130 | M00056779A:E12 |
| ES 102  | M00008015D:B10 | ES 130 | M00056779D:H10 |
| ES 102  | M00008015D:F08 | ES 130 | M00056779D:H10 |
| ES 102  | M00008020C:C03 | ES 130 | M00056780D:C02 |
| ES 103  | M00008023B:D12 | ES 130 | M00056780D:F09 |
| ES 103  | M00008043B:B11 | ES 130 | M00056781C:E12 |
| ES 103  | M00008059D:B08 | ES 130 | M00056782D:B06 |
| ES 103  | M00008065A:B05 | ES 130 | M00056783B:G11 |
| ES 103  | M00008065C:F02 | ES 130 | M00056784A:B05 |
| ES 103  | M00008075C:A12 | ES 130 | M00056785B:F08 |
| ES 103  | M00008076C:F02 | ES 130 | M00056789A:C04 |
| ES 103  | M00008079C:C03 | ES 130 | M00056789D:E10 |
| ES 103  | M00008085B:C09 | ES 130 | M00056791D:F12 |
| ES 103  | M00008089A:E09 | ES 130 | M00056793C:H07 |
| ES 103  | M00008098D:H01 | ES 130 | M00056796A:H05 |
| ES 103  | M00008099B:G08 | ES 130 | M00056799B:E11 |
| ES 103  | M00021620B:F10 | ES 130 | M00056802B:H01 |
| ES 103  | M00021626C:C04 | ES 130 | M00056802B:H01 |
| ES 103  | M00021626D:F04 | ES 130 | M00056804B:E06 |
| ES 103  | M00021628B:B11 | ES 130 | M00056805D:B09 |
| ES 103  | M00021628B:D07 | ES 130 | M00056808B:B12 |
| ES 103  | M00021649A:E12 | ES 130 | M00056811A:C04 |
| ES 103  | M00021654A:A04 | ES 130 | M00056812C:E08 |
| ES 103  | M00021654A:A04 | ES 130 | M00056815A:B01 |
| ES 103  | M00021655C:H02 | ES 130 | M00056816B:A10 |
| ES 103  | M00021670D:G05 | ES 130 | M00056817C:C03 |
| ES 103  | M00021681D:C02 | ES 130 | M00056821D:C09 |
| ES 103  | M00021681D:C02 | ES 130 | M00056822C:G11 |
| ES 103  | M00022189A:B03 | ES 130 | M00056823A:B05 |
| ES 103  | M00022216D:D06 | ES 130 | M00056823C:A07 |
| ES 103  | M00022221A:D06 | ES 131 | M00056824B:C10 |
| ES 103  | M00022221D:D06 | ES 131 | M00056824D:E01 |
| ES 103  | M00022231D:E12 | ES 131 | M00056826A:B12 |
| ES 103  | M00022234B:D05 | ES 131 | M00056830C:G02 |
| ES 103  | M00022235C:C11 | ES 131 | M00056833C:C01 |
| ES 103  | M00022236A:A02 | ES 131 | M00056839A:G01 |
| ES 103  | M00022246A:H08 | ES 131 | M00056839A:G02 |
| ES 103  | M00022251C:A09 | ES 131 | M00056839C:F01 |
| ES 103  | M00022253A:E03 | ES 131 | M00056840D:H09 |
| ES 103  | M00022259C:B07 | ES 131 | M00056841D:G09 |
| ES 103  | M00022273B:A09 | ES 131 | M00056842B:F12 |
| ES 103  | M00022279B:H04 | ES 131 | M00056842B:F12 |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 103  | M00022280A:G11 | ES 131 | M00056843B:H09 |
| ES 103  | M00022370A:G02 | ES 131 | M00056844A:E07 |
| ES 103  | M00022411D:G12 | ES 131 | M00056844C:A10 |
| ES 103  | M00022415C:B06 | ES 131 | M00056848B:C07 |
| ES 103  | M00022420B:H03 | ES 131 | M00056850B:E11 |
| ES 103  | M00022430B:D10 | ES 131 | M00056850B:E11 |
| ES 103  | M00022430C:D04 | ES 131 | M00056857B:C09 |
| ES 103  | M00022440D:D01 | ES 131 | M00056858A:B03 |
| ES 103  | M00022444A:C11 | ES 131 | M00056858B:A12 |
| ES 103  | M00022452A:B07 | ES 131 | M00056859A:D12 |
| ES 104  | M00022453B:H04 | ES 131 | M00056860A:F12 |
| ES 104  | M00022453B:H04 | ES 131 | M00056863C:E03 |
| ES 104  | M00022457C:G05 | ES 131 | M00056864B:H09 |
| ES 104  | M00022465D:F05 | ES 131 | M00056866B:E05 |
| ES 104  | M00022468A:E12 | ES 131 | M00056868D:E09 |
| ES 104  | M00022468C:E10 | ES 131 | M00056870A:E10 |
| ES 104  | M00022470B:G01 | ES 131 | M00056872A:A06 |
| ES 104  | M00022470B:G01 | ES 131 | M00056873C:E06 |
| ES 104  | M00022472D:E11 | ES 131 | M00056874B:H06 |
| ES 104  | M00022473D:B06 | ES 131 | M00056874C:D05 |
| ES 104  | M00022496D:F04 | ES 131 | M00056874D:G01 |
| ES 104  | M00022508A:C02 | ES 131 | M00056879A:E05 |
| ES 104  | M00022509A:B06 | ES 131 | M00056879B:H11 |
| ES 104  | M00022516B:E09 | ES 131 | M00056879D:A02 |
| ES 104  | M00022517B:E03 | ES 131 | M00056880D:B04 |
| ES 104  | M00022528A:H12 | ES 131 | M00056883D:A07 |
| ES 104  | M00022533C:E06 | ES 131 | M00056884B:C06 |
| ES 104  | M00022537A:C11 | ES 131 | M00056885C:C06 |
| ES 104  | M00022550C:B04 | ES 131 | M00056886A:C11 |
| ES 104  | M00022559D:D09 | ES 131 | M00056887B:F08 |
| ES 104  | M00022561A:A06 | ES 131 | M00056892C:A01 |
| ES 104  | M00022565A:A05 | ES 131 | M00056893B:H06 |
| ES 104  | M00022565A:A05 | ES 131 | M00056894D:G06 |
| ES 104  | M00022569A:A07 | ES 131 | M00056895B:A07 |
| ES 104  | M00022571C:D11 | ES 131 | M00056896A:F05 |
| ES 104  | M00021854C:E07 | ES 131 | M00056896A:F10 |
| ES 104  | M00021864A:E07 | ES 132 | M00056898D:D04 |
| ES 104  | M00021869D:D01 | ES 132 | M00056901A:A06 |
| ES 104  | M00021886D:F06 | ES 132 | M00056902A:H12 |
| ES 104  | M00021911A:H03 | ES 132 | M00056909B:E11 |
| ES 104  | M00021915B:E10 | ES 132 | M00056909C:D09 |
| ES 104  | M00021925C:H10 | ES 132 | M00056911B:F02 |
| ES 104  | M00021947B:C06 | ES 132 | M00056913B:G10 |
| ES 104  | M00022010B:H01 | ES 132 | M00056914D:B09 |
| ES 104  | M00022013D:H05 | ES 132 | M00056916C:B02 |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 104  | M00022015D:F11 | ES 132 | M00056916C:F04 |
| ES 104  | M00022015D:F11 | ES 132 | M00056921A:C07 |
| ES 104  | M00022025C:D02 | ES 132 | M00056923C:E09 |
| ES 104  | M00022049C:B07 | ES 132 | M00056924D:B06 |
| ES 104  | M00022050C:D04 | ES 132 | M00056925D:C07 |
| ES 104  | M00022052D:A08 | ES 132 | M00056939A:F08 |
| ES 104  | M00022058D:A01 | ES 132 | M00056939D:B02 |
| ES 104  | M00022060B:F09 | ES 132 | M00056941D:E02 |
| ES 104  | M00022106B:D04 | ES 132 | M00056945A:B11 |
| ES 104  | M00022123A:D05 | ES 132 | M00056947D:F09 |
| ES 104  | M00022129A:E12 | ES 132 | M00056949C:F06 |
| ES 104  | M00022132A:D10 | ES 132 | M00056951B:F09 |
| ES 104  | M00022132C:F04 | ES 132 | M00056952C:A06 |
| ES 105  | M00022137B:G04 | ES 132 | M00056952D:H04 |
| ES 105  | M00022143A:C10 | ES 132 | M00056953B:A06 |
| ES 105  | M00022143A:D01 | ES 132 | M00056955B:G09 |
| ES 105  | M00022143A:D01 | ES 132 | M00056956B:F01 |
| ES 105  | M00022148A:A06 | ES 132 | M00056960A:C05 |
| ES 105  | M00022149C:C01 | ES 132 | M00056961A:B08 |
| ES 105  | M00022149D:C06 | ES 132 | M00056961C:G12 |
| ES 105  | M00022151A:D11 | ES 132 | M00056964B:A02 |
| ES 105  | M00022151A:G05 | ES 132 | M00056966D:A11 |
| ES 105  | M00022163A:C08 | ES 132 | M00056967A:D02 |
| ES 105  | M00022598B:E12 | ES 132 | M00056967A:E07 |
| ES 105  | M00022598C:D05 | ES 132 | M00056969B:C08 |
| ES 105  | M00022617B:C02 | ES 132 | M00056969D:B01 |
| ES 105  | M00022624C:C02 | ES 132 | M00056972A:F05 |
| ES 105  | M00022641A:C10 | ES 132 | M00056973D:B08 |
| ES 105  | M00022641A:E06 | ES 132 | M00056974C:F04 |
| ES 105  | M00022641B:F02 | ES 132 | M00056976C:F10 |
| ES 105  | M00022645D:A05 | ES 132 | M00056977A:G03 |
| ES 105  | M00022645D:C07 | ES 132 | M00056985B:C05 |
| ES 105  | M00022651D:B04 | ES 132 | M00056986A:F11 |
| ES 105  | M00022651D:C01 | ES 132 | M00056986D:G01 |
| ES 105  | M00022655A:D10 | ES 132 | M00056990C:B09 |
| ES 105  | M00022656D:E11 | ES 132 | M00056990D:C11 |
| ES 105  | M00022660A:B04 | ES 132 | M00056993A:B06 |
| ES 105  | M00022667A:C05 | ES 132 | M00056993D:D03 |
| ES 105  | M00022667D:E11 | ES 132 | M00056994B:F07 |
| ES 105  | M00022681D:E06 | ES 133 | M00056994C:C03 |
| ES 105  | M00022697A:D12 | ES 133 | M00056996D:A12 |
| ES 105  | M00022702B:B04 | ES 133 | M00056997C:H09 |
| ES 105  | M00022716C:C06 | ES 133 | M00056998A:E08 |
| ES 105  | M00022716C:C06 | ES 133 | M00057002D:B05 |
| ES 105  | M00022719A:F12 | ES 133 | M00057002D:B06 |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 105  | M00022720B:A11 | ES 133 | M00057003B:B09 |
| ES 105  | M00022720C:C09 | ES 133 | M00057005B:C01 |
| ES 105  | M00022724C:D04 | ES 133 | M00057005C:D03 |
| ES 105  | M00022738B:D06 | ES 133 | M00057007C:B12 |
| ES 105  | M00022741B:B11 | ES 133 | M00057008C:E09 |
| ES 105  | M00022745C:C07 | ES 133 | M00057011A:D03 |
| ES 105  | M00022750A:A07 | ES 133 | M00057013B:D01 |
| ES 105  | M00022750A:A07 | ES 133 | M00057015A:C12 |
| ES 105  | M00022791B:F11 | ES 133 | M00057019C:H02 |
| ES 105  | M00022813B:A08 | ES 133 | M00057023A:H09 |
| ES 105  | M00022820D:C06 | ES 133 | M00057024A:E02 |
| ES 105  | M00022823A:D03 | ES 133 | M00057024A:G05 |
| ES 105  | M00022828A:C06 | ES 133 | M00057024D:H08 |
| ES 105  | M00022829A:H06 | ES 133 | M00057025C:A08 |
| ES 105  | M00022829C:H10 | ES 133 | M00057027C:G06 |
| ES 105  | M00022831B:H07 | ES 133 | M00057028D:D09 |
| ES 106  | M00022831C:A09 | ES 133 | M00057029A:C12 |
| ES 106  | M00022831D:C04 | ES 133 | M00057029D:A06 |
| ES 106  | M00022834C:G01 | ES 133 | M00057033A:F09 |
| ES 106  | M00022836A:G03 | ES 133 | M00057035B:C09 |
| ES 106  | M00022853C:C11 | ES 133 | M00057041D:B11 |
| ES 106  | M00022861D:B10 | ES 133 | M00057044C:F06 |
| ES 106  | M00022872A:B05 | ES 133 | M00057047B:C02 |
| ES 106  | M00022876B:B05 | ES 133 | M00057049A:G06 |
| ES 106  | M00022876D:D08 | ES 133 | M00057049C:H05 |
| ES 106  | M00022880C:G09 | ES 133 | M00057052D:B11 |
| ES 106  | M00022892C:G07 | ES 133 | M00057052D:G09 |
| ES 106  | M00022895B:B11 | ES 133 | M00057055B:G08 |
| ES 106  | M00022897D:H03 | ES 133 | M00057055B:G08 |
| ES 106  | M00022898C:F04 | ES 133 | M00057058C:F09 |
| ES 106  | M00022899A:C09 | ES 133 | M00057059D:F06 |
| ES 106  | M00022901D:E11 | ES 133 | M00057059D:H09 |
| ES 106  | M00022901D:E11 | ES 133 | M00057060B:A12 |
| ES 106  | M00022902C:H10 | ES 133 | M00057061C:D04 |
| ES 106  | M00022908B:H03 | ES 133 | M00057063A:C08 |
| ES 106  | M00022911B:G01 | ES 133 | M00057065C:D04 |
| ES 106  | M00022928A:F03 | ES 133 | M00057066A:A04 |
| ES 106  | M00022934D:B03 | ES 133 | M00057070D:B08 |
| ES 106  | M00022956B:B09 | ES 133 | M00057072B:E02 |
| ES 106  | M00022961A:B11 | ES 133 | M00057073D:A05 |
| ES 106  | M00022973A:G07 | ES 133 | M00057074D:C09 |
| ES 106  | M00022973C:G08 | ES 133 | M00057074D:C09 |
| ES 106  | M00022974D:D10 | ES 134 | M00055909B:G01 |
| ES 106  | M00022995C:E02 | ES 134 | M00055909C:E08 |
| ES 106  | M00022997A:C08 | ES 134 | M00055911B:E06 |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 106  | M00022998B:C08 | ES 134 | M00055912C:E10 |
| ES 106  | M00023002D:G10 | ES 134 | M00055912D:C05 |
| ES 106  | M00023015A:D10 | ES 134 | M00055913B:D05 |
| ES 106  | M00023015C:D02 | ES 134 | M00055919A:A06 |
| ES 106  | M00023020D:G09 | ES 134 | M00055921A:E03 |
| ES 106  | M00023023C:F03 | ES 134 | M00055921B:B11 |
| ES 106  | M00023029A:E06 | ES 134 | M00055922A:C02 |
| ES 106  | M00023331D:A11 | ES 134 | M00055924A:H11 |
| ES 106  | M00023347D:C12 | ES 134 | M00055930A:B08 |
| ES 106  | M00023377D:C09 | ES 134 | M00055931A:A03 |
| ES 106  | M00023393D:C02 | ES 134 | M00055931A:C01 |
| ES 106  | M00023393D:E12 | ES 134 | M00055931B:E01 |
| ES 106  | M00023399C:C08 | ES 134 | M00055936B:E07 |
| ES 106  | M00023409A:G08 | ES 134 | M00055937B:C02 |
| ES 106  | M00023414B:F03 | ES 134 | M00055941B:B12 |
| ES 106  | M00023428C:D03 | ES 134 | M00055941B:B12 |
| ES 106  | M00023428D:F11 | ES 134 | M00055945A:H11 |
| ES 106  | M00023430B:D10 | ES 134 | M00055945B:E10 |
| ES 106  | M00023518C:A04 | ES 134 | M00055946D:G07 |
| ES 107  | M00023520A:G07 | ES 134 | M00055951C:C02 |
| ES 107  | M00026804D:D03 | ES 134 | M00055956C:E02 |
| ES 107  | M00026805B:B04 | ES 134 | M00055958D:F02 |
| ES 107  | M00026848C:G11 | ES 134 | M00055959D:A12 |
| ES 107  | M00026854A:E07 | ES 134 | M00055966C:A03 |
| ES 107  | M00026856C:C11 | ES 134 | M00055966C:D06 |
| ES 107  | M00026860D:E01 | ES 134 | M00055971C:E07 |
| ES 107  | M00026861D:A09 | ES 134 | M00055973A:D04 |
| ES 107  | M00026865D:G11 | ES 134 | M00055976B:F01 |
| ES 107  | M00026866A:H08 | ES 134 | M00055979B:B09 |
| ES 107  | M00026873B:E11 | ES 134 | M00055980A:A10 |
| ES 107  | M00026873D:B08 | ES 134 | M00055981D:A07 |
| ES 107  | M00026879A:B02 | ES 134 | M00055984C:C02 |
| ES 107  | M00026879C:D10 | ES 134 | M00055985D:D01 |
| ES 107  | M00026890C:D02 | ES 134 | M00055990C:B05 |
| ES 107  | M00026893C:A01 | ES 134 | M00055992C:E11 |
| ES 107  | M00026896D:E10 | ES 134 | M00056139D:E04 |
| ES 107  | M00026899C:G11 | ES 134 | M00056139D:G01 |
| ES 107  | M00026899C:G11 | ES 134 | M00056140B:H07 |
| ES 107  | M00026900B:C02 | ES 134 | M00056140D:E07 |
| ES 107  | M00026902A:G04 | ES 134 | M00056141A:D05 |
| ES 107  | M00026906B:C10 | ES 134 | M00056141D:B09 |
| ES 107  | M00026909A:G03 | ES 134 | M00056143A:E09 |
| ES 107  | M00026917D:H03 | ES 134 | M00056144B:C09 |
| ES 107  | M00026926D:C05 | ES 134 | M00056145C:B04 |
| ES 107  | M00026934D:E09 | ES 134 | M00056149C:B01 |

| ES No. | Clone Name     | ES No. | Clone Name     |
|--------|----------------|--------|----------------|
| ES 107 | M00026936D:C12 | ES 135 | M00056150B:C12 |
| ES 107 | M00026937C:B08 | ES 135 | M00056153C:D01 |
| ES 107 | M00026938A:F04 | ES 135 | M00056156D:A12 |
| ES 107 | M00026938A:F04 | ES 135 | M00056160D:A08 |
| ES 107 | M00026949B:H10 | ES 135 | M00056161D:G04 |
| ES 107 | M00026950A:F12 | ES 135 | M00056162B:F08 |
| ES 107 | M00026950D:H01 | ES 135 | M00056162B:F08 |
| ES 107 | M00026951A:G06 | ES 135 | M00056162D:D06 |
| ES 107 | M00026951A:G11 | ES 135 | M00056162D:E09 |
| ES 107 | M00026951A:G11 | ES 135 | M00056167D:B08 |
| ES 107 | M00026951C:D03 | ES 135 | M00056169A:F06 |
| ES 107 | M00026975C:B03 | ES 135 | M00056171C:H11 |
| ES 107 | M00026977A:E09 | ES 135 | M00056171C:H12 |
| ES 107 | M00026984A:D10 | ES 135 | M00056180B:H09 |
| ES 107 | M00026985C:B05 | ES 135 | M00056184B:D08 |
| ES 107 | M00026986B:H10 | ES 135 | M00056184C:H03 |
| ES 107 | M00026993B:H06 | ES 135 | M00056184D:F01 |
| ES 107 | M00026994C:A07 | ES 135 | M00056185D:A03 |
| ES 107 | M00026996D:A06 | ES 135 | M00056185D:D06 |
| ES 107 | M00027000C:F05 | ES 135 | M00056186C:F02 |
| ES 107 | M00027006B:H01 | ES 135 | M00056190D:G02 |
| ES 107 | M00027013D:E10 | ES 135 | M00056192D:E04 |
| ES 108 | M00027014C:G04 | ES 135 | M00056192D:H02 |
| ES 108 | M00027014D:G04 | ES 135 | M00056195B:C08 |
| ES 108 | M00027016D:G06 | ES 135 | M00056198A:D07 |
| ES 108 | M00027021D:H11 | ES 135 | M00056199D:A09 |
| ES 108 | M00027028D:C07 | ES 135 | M00056201C:H08 |
| ES 108 | M00027030C:C08 | ES 135 | M00056203A:H10 |
| ES 108 | M00027034B:D09 | ES 135 | M00056204B:A04 |
| ES 108 | M00027034C:D11 | ES 135 | M00056205B:D01 |
| ES 108 | M00027035D:H09 | ES 135 | M00056206A:E06 |
| ES 108 | M00027039A:F06 | ES 136 | M00055997C:G11 |
| ES 108 | M00027039B:E09 | ES 136 | M00055999C:G10 |
| ES 108 | M00027042C:G11 | ES 136 | M00055999D:G06 |
| ES 108 | M00027046B:E05 | ES 136 | M00056000A:F12 |
| ES 108 | M00027051A:A07 | ES 136 | M00056000C:D09 |
| ES 108 | M00027054B:B03 | ES 136 | M00056001A:B06 |
| ES 108 | M00027076D:F07 | ES 136 | M00056001A:B07 |
| ES 108 | M00027084C:H10 | ES 136 | M00056001C:E09 |
| ES 108 | M00027088D:H06 | ES 136 | M00056003A:E06 |
| ES 108 | M00027090A:E08 | ES 136 | M00056005B:E05 |
| ES 108 | M00027093C:B08 | ES 136 | M00056005D:C04 |
| ES 108 | M00027096A:G07 | ES 136 | M00056007A:A11 |
| ES 108 | M00027097C:G11 | ES 136 | M00056007C:F06 |
| ES 108 | M00027111A:H04 | ES 136 | M00056016D:D06 |



| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 108  | M00027134A:G02 | ES 136 | M00056018B:G05 |
| ES 108  | M00027139D:C06 | ES 136 | M00056020A:D10 |
| ES 108  | M00027140A:C11 | ES 136 | M00056020D:D07 |
| ES 108  | M00027163A:D11 | ES 136 | M00056028C:F03 |
| ES 108  | M00027165C:F11 | ES 136 | M00056036D:B06 |
| ES 108  | M00027168C:H10 | ES 136 | M00056037C:B02 |
| ES 108  | M00027171D:B07 | ES 136 | M00056038D:F04 |
| ES 108  | M00027172A:C03 | ES 136 | M00056041A:C04 |
| ES 108  | M00027173D:D08 | ES 136 | M00056042A:A01 |
| ES 108  | M00027183B:B01 | ES 136 | M00056045D:H01 |
| ES 108  | M00027193C:C05 | ES 136 | M00056050C:A03 |
| ES 108  | M00027194D:A05 | ES 136 | M00056053A:A09 |
| ES 108  | M00027197A:G07 | ES 136 | M00056053A:D12 |
| ES 108  | M00027197B:F07 | ES 136 | M00056055A:A07 |
| ES 108  | M00027203B:H08 | ES 136 | M00056055B:B01 |
| ES 108  | M00027207B:E09 | ES 136 | M00056055C:D03 |
| ES 108  | M00027217A:G03 | ES 136 | M00056058A:H04 |
| ES 108  | M00027220A:B12 | ES 136 | M00056060B:B10 |
| ES 108  | M00027222A:C09 | ES 136 | M00056061B:F06 |
| ES 108  | M00027229D:E06 | ES 136 | M00056066D:H07 |
| ES 108  | M00027231D:A03 | ES 136 | M00056067B:D08 |
| ES 108  | M00027524B:B11 | ES 136 | M00056074D:G10 |
| ES 108  | M00027527A:G04 | ES 136 | M00056077D:E06 |
| ES 108  | M00027532C:C02 | ES 136 | M00056077D:E12 |
| ES 108  | M00027535D:E08 | ES 136 | M00056077D:E12 |
| ES 109  | M00027536D:G12 | ES 136 | M00056079B:D12 |
| ES 109  | M00027543C:B09 | ES 136 | M00056079B:F07 |
| ES 109  | M00027543D:G07 | ES 136 | M00056079C:C11 |
| ES 109  | M00027556D:G10 | ES 136 | M00056081D:B05 |
| ES 109  | M00027561C:C04 | ES 136 | M00056081D:B09 |
| ES 109  | M00027562B:C02 | ES 136 | M00056082C:F06 |
| ES 109  | M00027564A:D03 | ES 136 | M00056085D:H11 |
| ES 109  | M00027571C:C11 | ES 136 | M00056094A:H07 |
| ES 109  | M00027573A:F09 | ES 136 | M00056098A:H01 |
| ES 109  | M00027578B:F05 | ES 136 | M00056099B:G09 |
| ES 109  | M00027578C:E04 | ES 136 | M00056099B:H11 |
| ES 109  | M00027580C:E10 | ES 136 | M00056099B:H11 |
| ES 109  | M00027581B:E01 | ES 136 | M00056103A:D12 |
| ES 109  | M00027588A:C01 | ES 136 | M00056103C:H12 |
| ES 109  | M00027588C:A06 | ES 136 | M00056107B:E06 |
| ES 109  | M00027594B:C03 | ES 136 | M00056108D:B12 |
| ES 109  | M00027604A:G10 | ES 136 | M00056108D:B12 |
| ES 109  | M00027604A:G10 | ES 136 | M00056110C:D09 |
| ES 109  | M00027605C:E05 | ES 136 | M00056111D:H02 |
| ES 109  | M00027607A:H05 | ES 136 | M00056112A:H02 |

| Table 8 |                |        |                |
|---------|----------------|--------|----------------|
| ES No.  | Clone Name     | ES No. | Clone Name     |
| ES 109  | M00027608C:H07 | ES 136 | M00056114C:C06 |
| ES 109  | M00027616C:G12 | ES 136 | M00056125B:D09 |
| ES 109  | M00027628C:A01 | ES 136 | M00056128C:B10 |
| ES 109  | M00027639B:E11 | ES 136 | M00056131B:C12 |
| ES 109  | M00027641B:A01 | ES 136 | M00056133D:D09 |
| ES 109  | M00027652B:G03 | ES 136 | M00056136A:B11 |

| Table 9 PatientID | Path Report ID | Anatomical Loc   | Primary Tumor Size | Primary Tumor Grade | Histopath Grade | Local Invasion  | Lymphnode Met | Incidence Lymph | Regional Lymph | Distant Met & Loc | Descript Distant Met | Dist Met Grade | Comment   |
|-------------------|----------------|------------------|--------------------|---------------------|-----------------|---|---------------|-----------------|----------------|-------------------|----------------------|----------------|---|
| 15                | 21             | Ascending colon  | 4.0                | T3                  | G2              | extending into subserosal adipose tissue  | positive      | 3/8             | N1             | negative          |                      | MX             | invasive adenocarcinoma, moderately differentiated; focal perineural invasion is seen |
| 52                | 71             | Ascending colon  | 9.0                | T3                  | G3              | Invasion through muscularis propria,  | negative      | 0/12            | N0             | negative          |                      | M0             | Hyperplastic polyp in appendix.   |
| 121               | 140            | Sigmoid          | 6                  | T4                  | G2              | Invasion of muscularis propria into serosa, involving                                       | negative      | 0/34            | N0             | negative          |                      | M0             | Perineural invasion; donut anastomosis negative. One tubulovillous                    |
| 125               | 144            | Cecum            | 6                  | T3                  | G2              | Invasion through the muscularis propria into subserosal adipose tissue. Ileocecal junction. | negative      | 0/19            | N0             | negative          |                      | M0             | patient history of metastatic melanoma  |
| 128               | 147            | Transverse colon | 5.0                | T3                  | G2              | Invasion of muscularis propria into pericolonic fat   | positive      | 1/5             | N1             | negative          |                      | M0             |   |
| 130               | 149            | Splenic flexure  | 5.5                | T3                  |                 | through wall and into surrounding adipose tissue  | positive      | 10/24           | N2             | negative          |                      | M1             |   |

| Table 9 PatientID | Path Report ID | Anatomical Loc  | Primary Tumor Size | Primary Tumor Grade | Histopath Grade | Local Invasion   | Lymphnode Met | Incidence Lymph | Regional Lymph | Distant Met & Loc | Describe Distant Met                   | Dist Met Grade | Comment   |
|-------------------|----------------|-----------------|--------------------|---------------------|-----------------|--|---------------|-----------------|----------------|-------------------|--|----------------|---|
| 133               | 152            | Rectum          | 5.0                | T3                  | G2              | Invasion through muscularis propria into non-peritonealized pericolic tissue, gross configuration is annular.              | negative      | 0/9             | N0             | negative          |  | M0             | Small separate tubular adenoma (0.4 cm)                               |
| 141               | 160            | Cecum           | 5.5                | T3                  | G2              | Invasion of muscularis propria into pericolic adipose tissue, but not through serosa. Arising from tubular adenoma.        | positive      | 7/21            | N2             | positive (Liver)  | adenocarcinoma consistent with primary | M1             | Perineural invasion identified adjacent to metastatic adenocarcinoma. |
| 156               | 175            | Hepatic flexure | 3.8                | T3                  | G2              | Invasion through muscularis propria into subserosa/pericolic adipose, no serosal involvement. Gross configuration annular. | positive      | 2/13            | N1             | negative          |  | M0             | Separate tubulovillous and tubular adenomas                           |

| Table 9 PatientID | Path Report ID | Anatomical Loc   | Primary Tumor Size | Primary Tumor Grade | Histopath Grade | Local Invasion  | Lymphnode Met | Incidence Lymph | Regional Lymph | Distant Met & Loc             | Descript Distant Met  | Dist Met Grade | Comment   |
|-------------------|----------------|------------------|--------------------|---------------------|-----------------|---|---------------|-----------------|----------------|-------------------------------|---|----------------|---|
| 228               | 247            | Rectum           | 5.8                | T3                  | G2 to G3        | Invasion through muscularis propria to involve subserosal, perirectal adipose, and serosa | positive      | 1/8             | N1             | negative                      |   | MX             | Hyperplastic polyps                                       |
| 264               | 283            | Ascending colon  | 5.5                | T3                  | G2              | Invasion through muscularis propria into subserosal adipose tissue                        | negative      | 0/10            | N0             | negative                      |   | M0             | Tubulovillous adenoma with high grade dysplasia           |
| 266               | 285            | Transverse colon | 9                  | T3                  | G2              | Invades through muscularis propria to involve pericolic adipose, extends to serosa.       | negative      | 0/15            | N1             | positive (Mesenteric deposit) | 0.4 cm, may represent lymph node completely replaced by tumor | MX             |   |
| 268               | 287            | Cecum            | 6.5                | T2                  | G2              | Invades full thickness of muscularis propria, but mesenteric adipose free of malignancy   | negative      | 0/12            | N0             | negative                      |   | M0             |   |
| 278               | 297            | Rectum           | 4                  | T3                  | G2              | Invasion into perirectal adipose tissue.  | positive      | 7/10            | N2             | negative                      |   | M0             | Descending colon polyps, no HGD or carcinoma identified.. |

Table 9

| Table 9 Patient ID | Path Report ID | Anatomical Loc  | Primary Tumor Size | Primary Tumor Grade | Histopath Grade | Local Invasion  | Lymph node Met | Incidence Lymph | Regional Lymph | Distant Met & Loc | Descriptive Distant Met                     | Dist Met Grade | Comment  |
|--------------------|----------------|-----------------|--------------------|---------------------|-----------------|---|----------------|-----------------|----------------|-------------------|---|----------------|--|
| 295                | 314            | Ascending colon | 5.0                | T3                  | G2              | Invasion through muscularis propria into pericolic adipose tissue.                            | negative       | 0/12            | N0             | negative          |   | M0             | Melanosis coli and diverticular disease.               |
| 339                | 358            | Rectosigmoid    | 6                  | T3                  | G2              | Extends into perirectal fat but does not reach serosa   | negative       | 0/6             | N0             | negative          |   | M0             | 1 hyperplastic polyp identified                        |
| 341                | 360            | Ascending colon | 2 cm invasive      | T3                  | G2              | Invasion through muscularis propria to involve pericolonic fat. Arising from villous adenoma. | negative       | 0/4             | N0             | negative          |   | MX             |  |
| 356                | 375            | Sigmoid         | 6.5                | T3                  | G2              | Through colon wall into subserosal adipose tissue. No serosal spread seen.                    | negative       | 0/4             | N0             | negative          |   | M0             | Two mucosal polyps                                     |
| 360                | 412            | Ascending colon | 4.3                | T3                  | G2              | Invasion through muscularis propria to pericolonic fat  | positive       | 1/5             | N1             | negative          |   | M0             | Tumor arising at prior ileocolic surgical anastomosis. |
| 392                | 444            | Ascending colon | 2                  | T3                  | G2              | Invasion through muscularis propria into subserosal adipose tissue, not serosa.               | positive       | 1/6             | N1             | positive (Liver)  | Macrovesicular and microvesicular steatosis | M1             |  |

| Table 9 PatientID | Path Report ID | Anatomical Loc  | Primary Tumor Size | Primary Tumor Grade | Histopath Grade | Local Invasion   | Lymphnode Met | Incidence Lymph | Regional Lymph | Distant Met & Loc | Descript Distant Met  | Dist Met Grade | Comment  |
|-------------------|----------------|-----------------|--------------------|---------------------|-----------------|--|---------------|-----------------|----------------|-------------------|---|----------------|--|
| 393               | 445            | Cecum           | 6.0                | T3                  | G2              | Cecum, invades through muscularis propria to involve subserosal adipose tissue but not serosa. | negative      | 0/21            | N0             | negative          |   | M0             | radiagnosis of oophorectomy path to metastatic colon cancer.                     |
| 413               | 465            | Ascending colon | 4.8                | T3                  | G2              | Invasive through muscularis to involve periserosal fat, abutting ileocecal junction.           | negative      | 0/7             | N0             | positive (Liver)  | adenocarcinoma in multiple slides                                 | M1             |  |
| 505               | 383            |                 | 7.5 cm max dim     | T3                  | G2              | Invasion through muscularis propria involving pericolic adipose, serosal surface uninvolved    | positive      | 2/17            | N1             | positive (Liver)  | moderately differentiated adenocarcinoma, consistent with primary | M1             | Anatomical location of primary not noted in report. Evidence of chronic colitis. |
| 517               | 395            | Sigmoid         | 3                  | T3                  | G2              | penetrates muscularis propria, involves pericolic fat  | positive      | 6/6             | N2             | negative          |   | M0             | No mention of distant met in report  |

| Table 9 Patient ID | Path Report ID | Anatomical Loc  | Primary Tumor Size | Primary Tumor Grade | Histopath Grade | Local Invasion  | Lymph node Met | Incidence Lymph | Regional Lymph | Distant Met & Loc | Descriptive Distant Met   | Dist Met Grade | Comment  |
|--------------------|----------------|-----------------|--------------------|---------------------|-----------------|---|----------------|-----------------|----------------|-------------------|---------------------------|----------------|--|
| 534                | 553            | Ascending colon | 12                 | T3                  | G3              | Invasion through the muscularis propria involving pericolic fat Serosa free of tumor        | negative       | 0/8             | N0             | negative          |                           | M0             | Omentum with fibrosis and fat necrosis. Small bowel with acute and chronic serositis, focal abscess and adhesions. |
| 546                | 565            | Ascending colon | 5.5                | T3                  | G2              | Invasion through muscularis propria extensively through submucosal and extending to serosa. | positive       | 6/12            | N2             | positive (Liver)  | metastatic adenocarcinoma | M1             |  |
| 577                | 596            | Cecum           | 11.5               | T3                  | G2              | Invasion through the bowel wall, into subserosal adipose. Serosal surface free of tumor     | negative       | 0/58            | N0             | negative          |                           | M0             | Appendix dilated and fibrotic, but not involved by tumor   |



Table 9

| Table 9 PatientID | Path Report ID | Anatomical Loc   | Primary Tumor Size | Primary Tumor Grade | Histopath Grade | Local Invasion  | Lymph node Met | Incidence Lymph | Regional Lymph | Distant Met & Loc | Descrip Distant Met | Dist Met Grade | Comment   |
|-------------------|----------------|------------------|--------------------|---------------------|-----------------|---|----------------|-----------------|----------------|-------------------|---------------------|----------------|---|
| 695               | 714            | Cecum            | 14                 | T3                  | G2              | extending through bowel wall into serosal fat                             | negative       | 0/22            | N0             | negative          |                     | MX             | tubular adenoma and hyperplastic polyps present, moderately differentiated adenoma with mucinous differentiation (% not stated) |
| 784               | 803            | Ascending colon  | 3.5                | T3                  | G3              | through muscularis propria into pericolic soft tissues                    | positive       | 5/17            | N2             | positive (Liver)  |                     | M1             | invasive poorly differentiated adenosquamous carcinoma  |
| 786               | 805            | Descending colon | 9.5                | T3                  | G2              | through muscularis propria into pericolic fat, but not at serosal surface | negative       | 0/12            | N0             | positive (Liver)  |                     | M1             | moderately differentiated invasive adenocarcinoma <sup>a</sup>  |
| 791               | 810            | Ascending colon  | 5.8                | T3                  | G3              | through the muscularis propria into pericolic fat                         | positive       | 13/25           | N2             | positive (Liver)  |                     | M1             | poorly differentiated invasive colonic adenocarcinoma <sup>a</sup>  |

| Table 9 PatientID | Path Report ID | Anatomical Loc  | Primary Tumor Size | Primary Tumor Grade | Histopath Grade | Local Invasion                 | Lymphnode Met | Incidence Lymphn | Regional Lymph | Distant Met & Loc | Descrip Distant Met | Dist Met Grade | Comment   |
|-------------------|----------------|-----------------|--------------------|---------------------|-----------------|--------------------------------|---------------|------------------|----------------|-------------------|---------------------|----------------|---|
|                   |                |                 |                    |                     |                 | into muscularis propria        |               |                  |                |                   |                     |                | well- to moderately-differentiated adenocarcinoma; this patient has tumors of the ascending colon and the sigmoid colon |
| 888               | 908            | Ascending colon | 2.0                | T2                  | G1              |                                | positive      | 3/21             | N0             | positive (Liver)  |                     | M1             |   |
| 889               | 909            | Cecum           | 4.8                | T3                  | G2              | through muscularis propria int | positive      | 1/4              | N1             | positive (Liver)  |                     | M1             | moderately differentiated adenocarcinoma  |

Table 10

| SEQ ID<br>NO | %Pts<br>≥2x<br>T/N | % Pts<br>≥2_5x<br>T/N | % Pts<br>≥5x<br>T/N | P15      | P52      | P121  | P125  |
|--------------|--------------------|-----------------------|---------------------|----------|----------|-------|-------|
| 18           | 30.3               | 15.2                  | 3.0                 | 1.855    | 2.705    | 1.000 | 2.280 |
| 22           | 45.5               | 39.4                  | 18.2                | 2.196    | 1.719    | 0.604 | 2.388 |
| 127          | 27.3               | 18.2                  | 6.1                 | 1.000    | 1.620    | 1.822 | 1.692 |
| 139          | 21.2               | 18.2                  | 15.2                | 1000.000 | 0.001    | 2.345 | 1.000 |
| 148          | 27.3               | 18.2                  | 6.1                 | 1.000    | 1.620    | 1.822 | 1.692 |
| 155          | 45.5               | 12.1                  | 3.0                 | 1.870    | 3.104    | 1.361 | 2.388 |
| 246          | 42.4               | 9.1                   | 0.0                 | 2.211    | 2.347    | 1.000 | 1.493 |
| 272          | 48.5               | 27.3                  | 12.1                | 1.735    | 3.110    | 1.379 | 2.277 |
| 273          | 21.2               | 18.2                  | 18.2                | 1.000    | 1.000    | 0.330 | 1.349 |
| 279          | 24.2               | 12.1                  | 0.0                 | 1.614    | 2.348    | 1.498 | 1.916 |
| 298          | 21.2               | 18.2                  | 18.2                | 1.000    | 1.000    | 0.330 | 1.349 |
| 329          | 21.2               | 9.1                   | 6.1                 | 1.000    | 1.000    | 2.211 | 1.182 |
| 353          | 45.5               | 12.1                  | 3.0                 | 1.870    | 3.104    | 1.361 | 2.388 |
| 354          | 48.5               | 30.3                  | 3.0                 | 1.000    | 1.592    | 2.248 | 2.315 |
| 381          | 27.3               | 18.2                  | 6.1                 | 1.000    | 1.620    | 1.822 | 1.692 |
| 389          | 21.2               | 9.1                   | 6.1                 | 1.000    | 1.000    | 2.211 | 1.182 |
| 405          | 21.2               | 9.1                   | 3.0                 | 1.000    | 2.366    | 1.546 | 1.562 |
| 406          | 21.2               | 9.1                   | 3.0                 | 1.000    | 2.366    | 1.546 | 1.562 |
| 412          | 36.4               | 18.2                  | 0.0                 | 2.584    | 1.332    | 1.952 | 1.641 |
| 421          | 51.5               | 24.2                  | 3.0                 | 2.481    | 2.253    | 2.234 | 1.431 |
| 465          | 21.2               | 18.2                  | 15.2                | 1000.000 | 0.001    | 2.345 | 1.000 |
| 534          | 21.2               | 9.1                   | 3.0                 | 1.000    | 2.366    | 1.546 | 1.562 |
| 538          | 42.4               | 15.2                  | 0.0                 | 1.489    | 2.019    | 3.022 | 1.121 |
| 565          | 45.5               | 12.1                  | 3.0                 | 1.870    | 3.104    | 1.361 | 2.388 |
| 657          | 45.5               | 30.3                  | 3.0                 | 1.512    | 2.748    | 0.784 | 2.162 |
| 670          | 24.2               | 6.1                   | 0.0                 | 1.190    | 1.000    | 0.656 | 1.456 |
| 739          | 21.2               | 12.1                  | 0.0                 | 1.936    | 1.830    | 0.831 | 1.347 |
| 741          | 48.5               | 18.2                  | 0.0                 | 2.750    | 2.458    | 1.485 | 1.151 |
| 744          | 48.5               | 21.2                  | 0.0                 | 2.069    | 3.002    | 1.229 | 1.631 |
| 755          | 30.3               | 18.2                  | 3.0                 | 1.000    | 1.414    | 1.236 | 1.738 |
| 757          | 21.2               | 15.2                  | 6.1                 | 1.000    | 0.839    | 2.032 | 2.557 |
| 810          | 30.3               | 18.2                  | 3.0                 | 1.000    | 1.414    | 1.236 | 1.738 |
| 811          | 30.3               | 18.2                  | 3.0                 | 1.000    | 1.414    | 1.236 | 1.738 |
| 845          | 30.3               | 15.2                  | 9.1                 | 1.000    | 0.271    | 0.860 | 1.310 |
| 861          | 24.2               | 21.2                  | 15.2                | 1000.000 | 1000.000 | 1.000 | 1.320 |
| 915          | 30.3               | 15.2                  | 3.0                 | 1.855    | 2.705    | 1.000 | 2.280 |
| 954          | 24.2               | 21.2                  | 15.2                | 1000.000 | 1000.000 | 1.000 | 1.320 |
| 955          | 39.4               | 21.2                  | 3.0                 | 1.612    | 2.281    | 0.785 | 2.045 |
| 991          | 39.4               | 21.2                  | 3.0                 | 1.612    | 2.281    | 0.785 | 2.045 |
| 1035         | 24.2               | 6.1                   | 0.0                 | 1.190    | 1.000    | 0.656 | 1.456 |
| 1049         | 21.2               | 12.1                  | 0.0                 | 1.936    | 1.830    | 0.831 | 1.347 |
| 1050         | 39.4               | 21.2                  | 3.0                 | 1.612    | 2.281    | 0.785 | 2.045 |
| 1235         | 45.5               | 12.1                  | 3.0                 | 1.870    | 3.104    | 1.361 | 2.388 |
| 1292         | 21.2               | 3.0                   | 0.0                 | 1.558    | 2.014    | 2.250 | 1.643 |

Table 10

| SEQ ID<br>NO | %Pts<br>≥2x<br>T/N | % Pts<br>≥2_5x<br>T/N | % Pts<br>≥5x<br>T/N | P15   | P52   | P121  | P125  |
|--------------|--------------------|-----------------------|---------------------|-------|-------|-------|-------|
| 1313         | 24.2               | 6.1                   | 0.0                 | 1.190 | 1.000 | 0.656 | 1.456 |
| 1331         | 27.3               | 9.1                   | 3.0                 | 1.327 | 3.749 | 1.000 | 2.045 |
| 1334         | 48.5               | 30.3                  | 3.0                 | 1.000 | 1.592 | 2.248 | 2.315 |
| 1418         | 30.3               | 15.2                  | 3.0                 | 1.855 | 2.705 | 1.000 | 2.280 |
| 1419         | 45.5               | 12.1                  | 3.0                 | 1.870 | 3.104 | 1.361 | 2.388 |
| 1420         | 39.4               | 18.2                  | 3.0                 | 1.759 | 1.566 | 1.000 | 2.302 |
| 1477         | 39.4               | 18.2                  | 3.0                 | 1.759 | 1.566 | 1.000 | 2.302 |
| 1554         | 33.3               | 15.2                  | 0.0                 | 1.829 | 1.622 | 1.882 | 1.957 |
| 1579         | 42.4               | 9.1                   | 0.0                 | 2.211 | 2.347 | 1.000 | 1.493 |
| 1600         | 45.5               | 12.1                  | 3.0                 | 1.870 | 3.104 | 1.361 | 2.388 |
| 1639         | 48.5               | 27.3                  | 12.1                | 1.735 | 3.110 | 1.379 | 2.277 |
| 1657         | 42.4               | 24.2                  | 0.0                 | 1.000 | 1.908 | 2.267 | 1.188 |
| 1679         | 33.3               | 15.2                  | 0.0                 | 1.829 | 1.622 | 1.882 | 1.957 |
| 1744         | 42.4               | 15.2                  | 3.0                 | 2.059 | 2.753 | 1.679 | 1.587 |
| 1847         | 78.8               | 63.6                  | 9.1                 | 2.625 | 4.493 | 1.642 | 2.743 |
| 1877         | 45.5               | 12.1                  | 3.0                 | 1.870 | 3.104 | 1.361 | 2.388 |
| 1880         | 66.7               | 48.5                  | 6.1                 | 1.000 | 4.075 | 1.754 | 2.436 |
| 1889         | 45.5               | 12.1                  | 3.0                 | 1.870 | 3.104 | 1.361 | 2.388 |
| 2009         | 30.3               | 15.2                  | 3.0                 | 1.855 | 2.705 | 1.000 | 2.280 |
| 2023         | 30.3               | 18.2                  | 0.0                 | 1.285 | 2.400 | 0.767 | 1.270 |
| 2029         | 42.4               | 9.1                   | 0.0                 | 2.211 | 2.347 | 1.000 | 1.493 |
| 2071         | 24.2               | 6.1                   | 0.0                 | 1.190 | 1.000 | 0.656 | 1.456 |
| 2077         | 24.2               | 6.1                   | 0.0                 | 1.190 | 1.000 | 0.656 | 1.456 |
| 2103         | 27.3               | 21.2                  | 0.0                 | 3.505 | 0.793 | 0.809 | 1.348 |
| 2109         | 24.2               | 6.1                   | 0.0                 | 1.190 | 1.000 | 0.656 | 1.456 |
| 2138         | 33.3               | 21.2                  | 9.1                 | 1.000 | 0.296 | 3.016 | 0.794 |
| 2143         | 60.6               | 48.5                  | 12.1                | 6.263 | 1.000 | 1.832 | 1.937 |
| 2183         | 63.6               | 45.5                  | 12.1                | 1.945 | 2.010 | 0.547 | 3.325 |
| 2185         | 30.3               | 18.2                  | 3.0                 | 1.000 | 1.414 | 1.236 | 1.738 |
| 2190         | 24.2               | 6.1                   | 0.0                 | 1.190 | 1.000 | 0.656 | 1.456 |
| 2200         | 45.5               | 12.1                  | 3.0                 | 1.870 | 3.104 | 1.361 | 2.388 |
| 2206         | 60.6               | 27.3                  | 3.0                 | 2.256 | 2.228 | 1.673 | 1.937 |
| 2220         | 33.3               | 24.2                  | 3.0                 | 2.591 | 0.483 | 2.580 | 1.440 |
| 2224         | 48.5               | 36.4                  | 3.0                 | 1.602 | 3.209 | 1.000 | 2.942 |
| 2249         | 45.5               | 12.1                  | 3.0                 | 1.870 | 3.104 | 1.361 | 2.388 |
| 2255         | 24.2               | 3.0                   | 0.0                 | 1.985 | 2.261 | 1.000 | 0.904 |
| 2265         | 54.5               | 42.4                  | 6.1                 | 1.886 | 1.000 | 1.503 | 3.375 |
| 2267         | 84.8               | 57.6                  | 18.2                | 2.529 | 3.042 | 2.471 | 1.669 |
| 2281         | 54.5               | 36.4                  | 3.0                 | 2.008 | 0.686 | 3.104 | 1.362 |
| 2294         | 30.3               | 15.2                  | 3.0                 | 1.855 | 2.705 | 1.000 | 2.280 |
| 2300         | 30.3               | 15.2                  | 3.0                 | 1.855 | 2.705 | 1.000 | 2.280 |
| 2307         | 42.4               | 9.1                   | 0.0                 | 2.211 | 2.347 | 1.000 | 1.493 |
| 2309         | 42.4               | 21.2                  | 9.1                 | 2.497 | 1.837 | 3.249 | 1.497 |
| 2313         | 57.6               | 48.5                  | 9.1                 | 2.603 | 2.642 | 1.000 | 1.939 |

Table 10

| SEQ ID<br>NO | %Pts<br>≥2x<br>T/N | % Pts<br>≥2_5x<br>T/N | % Pts<br>≥5x<br>T/N | P15   | P52   | P121  | P125  |
|--------------|--------------------|-----------------------|---------------------|-------|-------|-------|-------|
| 2314         | 48.5               | 27.3                  | 12.1                | 1.735 | 3.110 | 1.379 | 2.277 |
| 2316         | 42.4               | 9.1                   | 0.0                 | 2.211 | 2.347 | 1.000 | 1.493 |
| 2327         | 39.4               | 24.2                  | 3.0                 | 2.006 | 1.692 | 1.778 | 1.662 |
| 2348         | 72.7               | 45.5                  | 0.0                 | 2.961 | 3.152 | 2.712 | 1.346 |

Table 11

| SEQ ID<br>NO | P128     | P130     | P133     | P141  | P156  | P228  | P264     | P266  |
|--------------|----------|----------|----------|-------|-------|-------|----------|-------|
| 18           | 0.713    | 1.800    | 1.955    | 0.663 | 0.466 | 1.457 | 2.262    | 1.236 |
| 22           | 1.594    | 6.800    | 1.340    | 1.131 | 1.000 | 2.647 | 1.628    | 1.190 |
| 127          | 3.761    | 1.000    | 1.000    | 1.587 | 2.127 | 1.000 | 1.000    | 1.000 |
| 139          | 1000.000 | 1.000    | 1000.000 | 0.482 | 2.846 | 0.767 | 1.631    | 1.000 |
| 148          | 3.761    | 1.000    | 1.000    | 1.587 | 2.127 | 1.000 | 1.000    | 1.000 |
| 155          | 2.062    | 1.781    | 2.302    | 1.000 | 1.000 | 1.306 | 2.099    | 1.357 |
| 246          | 1.779    | 1.337    | 2.865    | 1.515 | 1.617 | 1.301 | 2.098    | 1.733 |
| 272          | 2.044    | 2.219    | 4.257    | 0.744 | 1.000 | 1.127 | 1.588    | 1.634 |
| 273          | 1000.000 | 1000.000 | 1.000    | 1.000 | 0.566 | 1.554 | 1.000    | 1.000 |
| 279          | 1.202    | 1.852    | 2.370    | 1.000 | 1.000 | 1.114 | 1.399    | 1.239 |
| 298          | 1000.000 | 1000.000 | 1.000    | 1.000 | 0.566 | 1.554 | 1.000    | 1.000 |
| 329          | 3.234    | 0.001    | 1.000    | 8.480 | 2.077 | 1.000 | 0.001    | 1.445 |
| 353          | 2.062    | 1.781    | 2.302    | 1.000 | 1.000 | 1.306 | 2.099    | 1.357 |
| 354          | 1.664    | 1.987    | 2.307    | 2.728 | 1.000 | 1.239 | 1.469    | 2.059 |
| 381          | 3.761    | 1.000    | 1.000    | 1.587 | 2.127 | 1.000 | 1.000    | 1.000 |
| 389          | 3.234    | 0.001    | 1.000    | 8.480 | 2.077 | 1.000 | 0.001    | 1.445 |
| 405          | 1.531    | 1.553    | 1.854    | 2.044 | 1.363 | 1.786 | 1.877    | 1.644 |
| 406          | 1.531    | 1.553    | 1.854    | 2.044 | 1.363 | 1.786 | 1.877    | 1.644 |
| 412          | 1.831    | 1.503    | 2.326    | 1.130 | 1.773 | 1.379 | 2.318    | 2.019 |
| 421          | 2.209    | 1.889    | 3.114    | 1.776 | 1.788 | 1.879 | 2.666    | 2.257 |
| 465          | 1000.000 | 1.000    | 1000.000 | 0.482 | 2.846 | 0.767 | 1.631    | 1.000 |
| 534          | 1.531    | 1.553    | 1.854    | 2.044 | 1.363 | 1.786 | 1.877    | 1.644 |
| 538          | 1.559    | 1.000    | 1.740    | 3.133 | 2.186 | 1.869 | 2.023    | 2.483 |
| 565          | 2.062    | 1.781    | 2.302    | 1.000 | 1.000 | 1.306 | 2.099    | 1.357 |
| 657          | 1.524    | 1.770    | 2.846    | 1.185 | 1.000 | 1.460 | 1.831    | 2.261 |
| 670          | 1.182    | 1.636    | 1.418    | 1.298 | 1.000 | 1.000 | 1.127    | 0.774 |
| 739          | 0.845    | 1.286    | 1.872    | 1.000 | 1.000 | 1.295 | 1.722    | 1.785 |
| 741          | 1.819    | 1.801    | 3.227    | 1.457 | 2.960 | 1.388 | 2.086    | 2.410 |
| 744          | 2.515    | 1.605    | 2.399    | 1.803 | 2.524 | 1.551 | 2.284    | 1.574 |
| 755          | 1.000    | 0.754    | 2.234    | 3.723 | 1.000 | 1.285 | 1.771    | 2.246 |
| 757          | 0.745    | 1.332    | 1000.000 | 1.000 | 1.000 | 1.781 | 1.515    | 1.747 |
| 810          | 1.000    | 0.754    | 2.234    | 3.723 | 1.000 | 1.285 | 1.771    | 2.246 |
| 811          | 1.000    | 0.754    | 2.234    | 3.723 | 1.000 | 1.285 | 1.771    | 2.246 |
| 845          | 2.331    | 1.641    | 1000.000 | 1.252 | 1.000 | 0.595 | 1.950    | 0.616 |
| 861          | 2.888    | 1.000    | 0.001    | 1.000 | 1.694 | 0.001 | 1000.000 | 1.423 |
| 915          | 0.713    | 1.800    | 1.955    | 0.663 | 0.466 | 1.457 | 2.262    | 1.236 |
| 954          | 2.888    | 1.000    | 0.001    | 1.000 | 1.694 | 0.001 | 1000.000 | 1.423 |
| 955          | 1.415    | 2.042    | 2.733    | 0.898 | 1.431 | 1.000 | 1.459    | 2.009 |
| 991          | 1.415    | 2.042    | 2.733    | 0.898 | 1.431 | 1.000 | 1.459    | 2.009 |
| 1035         | 1.182    | 1.636    | 1.418    | 1.298 | 1.000 | 1.000 | 1.127    | 0.774 |
| 1049         | 0.845    | 1.286    | 1.872    | 1.000 | 1.000 | 1.295 | 1.722    | 1.785 |
| 1050         | 1.415    | 2.042    | 2.733    | 0.898 | 1.431 | 1.000 | 1.459    | 2.009 |
| 1235         | 2.062    | 1.781    | 2.302    | 1.000 | 1.000 | 1.306 | 2.099    | 1.357 |
| 1292         | 1.804    | 1.641    | 1.876    | 1.335 | 0.766 | 1.245 | 1.500    | 1.000 |
| 1313         | 1.182    | 1.636    | 1.418    | 1.298 | 1.000 | 1.000 | 1.127    | 0.774 |

Table 11

|      |       |       |       |       |       |       |       |       |
|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1331 | 1.427 | 1.669 | 1.837 | 1.265 | 1.000 | 1.667 | 1.000 | 1.374 |
| 1334 | 1.664 | 1.987 | 2.307 | 2.728 | 1.000 | 1.239 | 1.469 | 2.059 |
| 1418 | 0.713 | 1.800 | 1.955 | 0.663 | 0.466 | 1.457 | 2.262 | 1.236 |
| 1419 | 2.062 | 1.781 | 2.302 | 1.000 | 1.000 | 1.306 | 2.099 | 1.357 |
| 1420 | 1.518 | 1.997 | 2.298 | 2.273 | 1.000 | 1.234 | 1.186 | 1.730 |
| 1477 | 1.518 | 1.997 | 2.298 | 2.273 | 1.000 | 1.234 | 1.186 | 1.730 |
| 1554 | 2.959 | 1.821 | 2.234 | 1.181 | 1.827 | 1.000 | 2.042 | 1.970 |
| 1579 | 1.779 | 1.337 | 2.865 | 1.515 | 1.617 | 1.301 | 2.098 | 1.733 |
| 1600 | 2.062 | 1.781 | 2.302 | 1.000 | 1.000 | 1.306 | 2.099 | 1.357 |
| 1639 | 2.044 | 2.219 | 4.257 | 0.744 | 1.000 | 1.127 | 1.588 | 1.634 |
| 1657 | 2.160 | 1.416 | 1.000 | 3.531 | 2.974 | 1.798 | 1.899 | 2.065 |
| 1679 | 2.959 | 1.821 | 2.234 | 1.181 | 1.827 | 1.000 | 2.042 | 1.970 |
| 1744 | 1.479 | 1.669 | 2.442 | 1.352 | 1.367 | 1.605 | 2.145 | 2.098 |
| 1847 | 1.839 | 2.548 | 2.954 | 2.234 | 1.816 | 1.352 | 3.390 | 2.541 |
| 1877 | 2.062 | 1.781 | 2.302 | 1.000 | 1.000 | 1.306 | 2.099 | 1.357 |
| 1880 | 2.762 | 2.081 | 4.111 | 2.306 | 2.391 | 1.675 | 2.572 | 3.031 |
| 1889 | 2.062 | 1.781 | 2.302 | 1.000 | 1.000 | 1.306 | 2.099 | 1.357 |
| 2009 | 0.713 | 1.800 | 1.955 | 0.663 | 0.466 | 1.457 | 2.262 | 1.236 |
| 2023 | 1.871 | 1.869 | 2.588 | 1.834 | 1.718 | 1.197 | 1.965 | 2.023 |
| 2029 | 1.779 | 1.337 | 2.865 | 1.515 | 1.617 | 1.301 | 2.098 | 1.733 |
| 2071 | 1.182 | 1.636 | 1.418 | 1.298 | 1.000 | 1.000 | 1.127 | 0.774 |
| 2077 | 1.182 | 1.636 | 1.418 | 1.298 | 1.000 | 1.000 | 1.127 | 0.774 |
| 2103 | 2.297 | 0.855 | 1.659 | 1.607 | 0.252 | 1.602 | 2.866 | 1.292 |
| 2109 | 1.182 | 1.636 | 1.418 | 1.298 | 1.000 | 1.000 | 1.127 | 0.774 |
| 2138 | 2.074 | 1.438 | 1.552 | 2.403 | 0.647 | 0.605 | 0.469 | 0.528 |
| 2143 | 2.828 | 2.795 | 2.732 | 2.548 | 0.073 | 1.201 | 1.722 | 1.181 |
| 2183 | 1.714 | 3.061 | 4.635 | 1.688 | 1.230 | 1.241 | 1.237 | 1.852 |
| 2185 | 1.000 | 0.754 | 2.234 | 3.723 | 1.000 | 1.285 | 1.771 | 2.246 |
| 2190 | 1.182 | 1.636 | 1.418 | 1.298 | 1.000 | 1.000 | 1.127 | 0.774 |
| 2200 | 2.062 | 1.781 | 2.302 | 1.000 | 1.000 | 1.306 | 2.099 | 1.357 |
| 2206 | 2.229 | 2.131 | 2.194 | 2.235 | 2.121 | 1.388 | 3.468 | 2.115 |
| 2220 | 2.650 | 0.815 | 1.629 | 1.586 | 0.155 | 1.408 | 2.830 | 1.636 |
| 2224 | 1.385 | 2.044 | 2.510 | 0.628 | 1.763 | 1.000 | 1.000 | 1.687 |
| 2249 | 2.062 | 1.781 | 2.302 | 1.000 | 1.000 | 1.306 | 2.099 | 1.357 |
| 2255 | 1.454 | 1.000 | 1.567 | 2.350 | 1.729 | 2.071 | 1.439 | 1.540 |
| 2265 | 2.843 | 2.931 | 1.690 | 1.678 | 0.724 | 2.656 | 2.035 | 3.526 |
| 2267 | 2.490 | 1.937 | 3.729 | 2.105 | 2.224 | 2.547 | 2.605 | 4.402 |
| 2281 | 3.412 | 2.374 | 1.404 | 4.761 | 3.241 | 2.253 | 1.384 | 1.912 |
| 2294 | 0.713 | 1.800 | 1.955 | 0.663 | 0.466 | 1.457 | 2.262 | 1.236 |
| 2300 | 0.713 | 1.800 | 1.955 | 0.663 | 0.466 | 1.457 | 2.262 | 1.236 |
| 2307 | 1.779 | 1.337 | 2.865 | 1.515 | 1.617 | 1.301 | 2.098 | 1.733 |
| 2309 | 1.496 | 1.483 | 2.427 | 1.764 | 1.000 | 1.231 | 1.413 | 1.000 |
| 2313 | 1.452 | 1.915 | 2.252 | 1.342 | 2.516 | 1.278 | 2.179 | 4.223 |
| 2314 | 2.044 | 2.219 | 4.257 | 0.744 | 1.000 | 1.127 | 1.588 | 1.634 |
| 2316 | 1.779 | 1.337 | 2.865 | 1.515 | 1.617 | 1.301 | 2.098 | 1.733 |
| 2327 | 1.778 | 1.200 | 2.169 | 1.462 | 1.570 | 1.784 | 1.937 | 2.633 |
| 2348 | 2.064 | 1.288 | 2.075 | 2.527 | 2.239 | 1.745 | 3.772 | 3.393 |

Table 11

|      |       |       |       |       |       |       |       |       |
|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 2384 | 2.340 | 0.001 | 0.001 | 2.927 | 4.830 | 1.708 | 1.651 | 1.586 |
|------|-------|-------|-------|-------|-------|-------|-------|-------|

$\frac{\partial^2 \mathcal{L}}{\partial \theta^2}$   $\frac{\partial^2 \mathcal{L}}{\partial \theta \partial \eta}$   $\frac{\partial^2 \mathcal{L}}{\partial \eta^2}$   $\frac{\partial^2 \mathcal{L}}{\partial \theta \partial \eta}$   $\frac{\partial^2 \mathcal{L}}{\partial \theta \partial \eta}$   $\frac{\partial^2 \mathcal{L}}{\partial \theta \partial \eta}$   $\frac{\partial^2 \mathcal{L}}{\partial \theta \partial \eta}$   $\frac{\partial^2 \mathcal{L}}{\partial \theta \partial \eta}$   $\frac{\partial^2 \mathcal{L}}{\partial \theta \partial \eta}$



Table 12

| SEQ ID<br>NO | P268     | P278     | P295   | P339     | P341  | P356     | P360     | P392   |
|--------------|----------|----------|--------|----------|-------|----------|----------|--------|
| 18           | 1.000    | 2.819    | 1.000  | 1.589    | 1.238 | 1.784    | 0.748    | 2.486  |
| 22           | 1.194    | 1.000    | 1.000  | 1.474    | 3.006 | 2.766    | 1.622    | 10.061 |
| 127          | 2.953    | 2.030    | 8.118  | 1.000    | 2.854 | 1.000    | 1000.000 | 0.001  |
| 139          | 1000.000 | 1.332    | 1.000  | 0.344    | 1.537 | 1.000    | 0.001    | 0.464  |
| 148          | 2.953    | 2.030    | 8.118  | 1.000    | 2.854 | 1.000    | 1000.000 | 0.001  |
| 155          | 1.187    | 1.447    | 1.000  | 1.484    | 3.621 | 3.844    | 1.995    | 1.313  |
| 246          | 1.422    | 2.018    | 2.385  | 1.218    | 2.039 | 3.486    | 1.636    | 1.623  |
| 272          | 1.268    | 1.563    | 1.870  | 2.056    | 6.240 | 6.491    | 2.230    | 1.427  |
| 273          | 1.000    | 1000.000 | 1.000  | 1.196    | 2.209 | 1000.000 | 0.001    | 1.000  |
| 279          | 1.000    | 1.000    | 1.000  | 1.737    | 2.382 | 3.061    | 2.679    | 1.361  |
| 298          | 1.000    | 1000.000 | 1.000  | 1.196    | 2.209 | 1000.000 | 0.001    | 1.000  |
| 329          | 2.467    | 2.166    | 21.707 | 0.615    | 1.616 | 1.000    | 1.000    | 1.000  |
| 353          | 1.187    | 1.447    | 1.000  | 1.484    | 3.621 | 3.844    | 1.995    | 1.313  |
| 354          | 2.359    | 1.552    | 2.918  | 1.647    | 4.706 | 3.623    | 1.979    | 1.677  |
| 381          | 2.953    | 2.030    | 8.118  | 1.000    | 2.854 | 1.000    | 1000.000 | 0.001  |
| 389          | 2.467    | 2.166    | 21.707 | 0.615    | 1.616 | 1.000    | 1.000    | 1.000  |
| 405          | 1.221    | 1.796    | 1.995  | 1.780    | 1.726 | 2.970    | 1.792    | 1.581  |
| 406          | 1.221    | 1.796    | 1.995  | 1.780    | 1.726 | 2.970    | 1.792    | 1.581  |
| 412          | 2.677    | 2.809    | 2.969  | 1.373    | 2.087 | 3.804    | 1.612    | 1.163  |
| 421          | 2.468    | 5.262    | 4.008  | 1.487    | 4.366 | 2.078    | 1.781    | 1.332  |
| 465          | 1000.000 | 1.332    | 1.000  | 0.344    | 1.537 | 1.000    | 0.001    | 0.464  |
| 534          | 1.221    | 1.796    | 1.995  | 1.780    | 1.726 | 2.970    | 1.792    | 1.581  |
| 538          | 2.565    | 1.856    | 1.000  | 1.000    | 2.449 | 1.000    | 2.097    | 2.647  |
| 565          | 1.187    | 1.447    | 1.000  | 1.484    | 3.621 | 3.844    | 1.995    | 1.313  |
| 657          | 1.369    | 1.000    | 1.000  | 1.679    | 3.084 | 2.855    | 2.104    | 0.927  |
| 670          | 1.677    | 2.420    | 2.263  | 1.314    | 1.473 | 2.523    | 1.776    | 2.244  |
| 739          | 1.412    | 1.431    | 3.103  | 1.000    | 2.847 | 2.621    | 1.000    | 1.117  |
| 741          | 2.240    | 2.040    | 1.000  | 1.000    | 2.450 | 3.440    | 2.045    | 1.998  |
| 744          | 1.837    | 2.201    | 2.518  | 1.604    | 2.248 | 2.989    | 1.570    | 1.409  |
| 755          | 1.000    | 1.320    | 0.556  | 1.385    | 1.321 | 1.000    | 1.000    | 6.185  |
| 757          | 0.713    | 1000.000 | 0.632  | 2.389    | 0.202 | 1.000    | 1.000    | 0.356  |
| 810          | 1.000    | 1.320    | 0.556  | 1.385    | 1.321 | 1.000    | 1.000    | 6.185  |
| 811          | 1.000    | 1.320    | 0.556  | 1.385    | 1.321 | 1.000    | 1.000    | 6.185  |
| 845          | 2.151    | 2.384    | 2.417  | 0.573    | 1.451 | 2.652    | 1.000    | 0.734  |
| 861          | 1.000    | 1.509    | 9.879  | 1000.000 | 2.327 | 0.001    | 1.236    | 0.870  |
| 915          | 1.000    | 2.819    | 1.000  | 1.589    | 1.238 | 1.784    | 0.748    | 2.486  |
| 954          | 1.000    | 1.509    | 9.879  | 1000.000 | 2.327 | 0.001    | 1.236    | 0.870  |
| 955          | 1.657    | 1.732    | 3.510  | 1.652    | 4.946 | 4.071    | 2.194    | 1.932  |
| 991          | 1.657    | 1.732    | 3.510  | 1.652    | 4.946 | 4.071    | 2.194    | 1.932  |
| 1035         | 1.677    | 2.420    | 2.263  | 1.314    | 1.473 | 2.523    | 1.776    | 2.244  |
| 1049         | 1.412    | 1.431    | 3.103  | 1.000    | 2.847 | 2.621    | 1.000    | 1.117  |
| 1050         | 1.657    | 1.732    | 3.510  | 1.652    | 4.946 | 4.071    | 2.194    | 1.932  |
| 1235         | 1.187    | 1.447    | 1.000  | 1.484    | 3.621 | 3.844    | 1.995    | 1.313  |
| 1292         | 0.718    | 1.000    | 1.000  | 1.675    | 2.301 | 1.361    | 2.161    | 1.825  |
| 1313         | 1.677    | 2.420    | 2.263  | 1.314    | 1.473 | 2.523    | 1.776    | 2.244  |

Table 12

|      |       |       |       |       |        |       |       |       |
|------|-------|-------|-------|-------|--------|-------|-------|-------|
| 1331 | 0.789 | 1.609 | 1.000 | 0.797 | 1.000  | 2.075 | 2.491 | 2.505 |
| 1334 | 2.359 | 1.552 | 2.918 | 1.647 | 4.706  | 3.623 | 1.979 | 1.677 |
| 1418 | 1.000 | 2.819 | 1.000 | 1.589 | 1.238  | 1.784 | 0.748 | 2.486 |
| 1419 | 1.187 | 1.447 | 1.000 | 1.484 | 3.621  | 3.844 | 1.995 | 1.313 |
| 1420 | 1.864 | 1.428 | 2.631 | 1.854 | 3.430  | 3.182 | 1.892 | 1.581 |
| 1477 | 1.864 | 1.428 | 2.631 | 1.854 | 3.430  | 3.182 | 1.892 | 1.581 |
| 1554 | 2.495 | 2.090 | 3.320 | 1.000 | 3.907  | 2.976 | 1.875 | 1.000 |
| 1579 | 1.422 | 2.018 | 2.385 | 1.218 | 2.039  | 3.486 | 1.636 | 1.623 |
| 1600 | 1.187 | 1.447 | 1.000 | 1.484 | 3.621  | 3.844 | 1.995 | 1.313 |
| 1639 | 1.268 | 1.563 | 1.870 | 2.056 | 6.240  | 6.491 | 2.230 | 1.427 |
| 1657 | 2.183 | 2.285 | 3.554 | 1.247 | 2.093  | 1.840 | 1.855 | 1.504 |
| 1679 | 2.495 | 2.090 | 3.320 | 1.000 | 3.907  | 2.976 | 1.875 | 1.000 |
| 1744 | 2.006 | 1.696 | 2.261 | 1.611 | 2.154  | 3.791 | 1.816 | 1.356 |
| 1847 | 1.535 | 2.851 | 4.154 | 2.055 | 6.047  | 4.103 | 3.367 | 2.029 |
| 1877 | 1.187 | 1.447 | 1.000 | 1.484 | 3.621  | 3.844 | 1.995 | 1.313 |
| 1880 | 2.274 | 1.266 | 4.526 | 2.591 | 5.409  | 3.138 | 2.675 | 1.391 |
| 1889 | 1.187 | 1.447 | 1.000 | 1.484 | 3.621  | 3.844 | 1.995 | 1.313 |
| 2009 | 1.000 | 2.819 | 1.000 | 1.589 | 1.238  | 1.784 | 0.748 | 2.486 |
| 2023 | 1.971 | 1.699 | 2.355 | 1.453 | 3.122  | 2.528 | 1.949 | 1.326 |
| 2029 | 1.422 | 2.018 | 2.385 | 1.218 | 2.039  | 3.486 | 1.636 | 1.623 |
| 2071 | 1.677 | 2.420 | 2.263 | 1.314 | 1.473  | 2.523 | 1.776 | 2.244 |
| 2077 | 1.677 | 2.420 | 2.263 | 1.314 | 1.473  | 2.523 | 1.776 | 2.244 |
| 2103 | 2.516 | 0.852 | 1.775 | 0.818 | 4.294  | 2.281 | 1.119 | 0.890 |
| 2109 | 1.677 | 2.420 | 2.263 | 1.314 | 1.473  | 2.523 | 1.776 | 2.244 |
| 2138 | 1.794 | 1.486 | 5.006 | 0.398 | 4.768  | 0.001 | 2.344 | 2.434 |
| 2143 | 2.079 | 1.664 | 1.000 | 1.871 | 2.812  | 2.693 | 5.094 | 1.947 |
| 2183 | 2.325 | 2.043 | 2.530 | 2.411 | 5.749  | 5.509 | 3.490 | 2.008 |
| 2185 | 1.000 | 1.320 | 0.556 | 1.385 | 1.321  | 1.000 | 1.000 | 6.185 |
| 2190 | 1.677 | 2.420 | 2.263 | 1.314 | 1.473  | 2.523 | 1.776 | 2.244 |
| 2200 | 1.187 | 1.447 | 1.000 | 1.484 | 3.621  | 3.844 | 1.995 | 1.313 |
| 2206 | 1.977 | 1.676 | 1.774 | 1.542 | 2.538  | 1.867 | 2.312 | 1.000 |
| 2220 | 2.942 | 0.729 | 1.772 | 0.861 | 15.794 | 2.349 | 1.363 | 0.808 |
| 2224 | 1.457 | 1.690 | 2.551 | 1.860 | 4.114  | 3.548 | 3.125 | 0.792 |
| 2249 | 1.187 | 1.447 | 1.000 | 1.484 | 3.621  | 3.844 | 1.995 | 1.313 |
| 2255 | 1.586 | 1.943 | 1.000 | 0.699 | 1.593  | 2.039 | 1.798 | 0.774 |
| 2265 | 2.157 | 1.922 | 3.895 | 4.143 | 2.655  | 1.914 | 2.159 | 3.312 |
| 2267 | 3.442 | 3.933 | 5.994 | 1.448 | 8.695  | 7.488 | 2.687 | 2.449 |
| 2281 | 2.467 | 1.000 | 7.584 | 1.417 | 3.693  | 1.947 | 1.539 | 4.429 |
| 2294 | 1.000 | 2.819 | 1.000 | 1.589 | 1.238  | 1.784 | 0.748 | 2.486 |
| 2300 | 1.000 | 2.819 | 1.000 | 1.589 | 1.238  | 1.784 | 0.748 | 2.486 |
| 2307 | 1.422 | 2.018 | 2.385 | 1.218 | 2.039  | 3.486 | 1.636 | 1.623 |
| 2309 | 2.485 | 2.369 | 1.000 | 1.820 | 3.354  | 5.046 | 1.820 | 0.703 |
| 2313 | 3.203 | 1.593 | 4.012 | 1.593 | 6.374  | 6.940 | 3.158 | 0.947 |
| 2314 | 1.268 | 1.563 | 1.870 | 2.056 | 6.240  | 6.491 | 2.230 | 1.427 |
| 2316 | 1.422 | 2.018 | 2.385 | 1.218 | 2.039  | 3.486 | 1.636 | 1.623 |
| 2327 | 2.439 | 1.482 | 2.156 | 1.390 | 3.500  | 3.654 | 1.655 | 0.771 |
| 2348 | 2.448 | 2.617 | 4.003 | 1.289 | 2.940  | 3.894 | 2.277 | 1.202 |

Table 12

|      |       |       |       |       |       |       |       |       |
|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 2384 | 2.328 | 1.359 | 9.253 | 0.383 | 1.835 | 0.001 | 1.000 | 0.714 |
|------|-------|-------|-------|-------|-------|-------|-------|-------|

$\frac{\partial^2 \mathcal{L}}{\partial \theta^2}$   $\frac{\partial^2 \mathcal{L}}{\partial \theta \partial \eta}$   $\frac{\partial^2 \mathcal{L}}{\partial \eta^2}$   $\frac{\partial^2 \mathcal{L}}{\partial \theta \partial \alpha}$   $\frac{\partial^2 \mathcal{L}}{\partial \eta \partial \alpha}$   $\frac{\partial^2 \mathcal{L}}{\partial \theta \partial \beta}$   $\frac{\partial^2 \mathcal{L}}{\partial \eta \partial \beta}$   $\frac{\partial^2 \mathcal{L}}{\partial \theta \partial \gamma}$   $\frac{\partial^2 \mathcal{L}}{\partial \eta \partial \gamma}$

Table 13

| SEQ ID<br>NO | P393   | P413  | P505     | P517  | P534  | P546     | P577   | P695  |
|--------------|--------|-------|----------|-------|-------|----------|--------|-------|
| 18           | 1.058  | 2.471 | 1.583    | 1.726 | 0.506 | 1.431    | 2.632  | 5.930 |
| 22           | 14.260 | 2.516 | 1.498    | 3.747 | 1.300 | 5.779    | 11.202 | 0.001 |
| 127          | 1.000  | 0.001 | 1.000    | 1.000 | 0.001 | 1.000    | 3.303  | 1.000 |
| 139          | 1.000  | 1.000 | 0.458    | 1.249 | 0.001 | 1000.000 | 0.702  | 1.000 |
| 148          | 1.000  | 0.001 | 1.000    | 1.000 | 0.001 | 1.000    | 3.303  | 1.000 |
| 155          | 1.137  | 2.268 | 2.414    | 1.382 | 2.107 | 2.210    | 2.384  | 5.256 |
| 246          | 0.741  | 2.181 | 2.494    | 1.504 | 1.511 | 1.831    | 2.064  | 4.421 |
| 272          | 1.348  | 2.222 | 2.506    | 1.355 | 1.670 | 2.535    | 1.556  | 8.411 |
| 273          | 1.000  | 1.000 | 1000.000 | 1.477 | 1.645 | 1.000    | 1.389  | 1.000 |
| 279          | 0.914  | 1.603 | 1.936    | 1.485 | 2.430 | 1.999    | 1.647  | 4.375 |
| 298          | 1.000  | 1.000 | 1000.000 | 1.477 | 1.645 | 1.000    | 1.389  | 1.000 |
| 329          | 1.000  | 1.000 | 1.436    | 0.517 | 1.000 | 1.469    | 1.000  | 1.000 |
| 353          | 1.137  | 2.268 | 2.414    | 1.382 | 2.107 | 2.210    | 2.384  | 5.256 |
| 354          | 1.224  | 3.432 | 2.806    | 1.328 | 2.470 | 2.592    | 1.929  | 6.973 |
| 381          | 1.000  | 0.001 | 1.000    | 1.000 | 0.001 | 1.000    | 3.303  | 1.000 |
| 389          | 1.000  | 1.000 | 1.436    | 0.517 | 1.000 | 1.469    | 1.000  | 1.000 |
| 405          | 1.241  | 1.841 | 1.470    | 1.000 | 1.672 | 2.218    | 1.649  | 7.555 |
| 406          | 1.241  | 1.841 | 1.470    | 1.000 | 1.672 | 2.218    | 1.649  | 7.555 |
| 412          | 1.258  | 2.153 | 1.849    | 1.445 | 1.000 | 1.531    | 1.637  | 3.302 |
| 421          | 1.000  | 1.327 | 2.871    | 1.116 | 1.903 | 2.200    | 2.644  | 0.001 |
| 465          | 1.000  | 1.000 | 0.458    | 1.249 | 0.001 | 1000.000 | 0.702  | 1.000 |
| 534          | 1.241  | 1.841 | 1.470    | 1.000 | 1.672 | 2.218    | 1.649  | 7.555 |
| 538          | 1.560  | 1.982 | 2.159    | 1.278 | 1.425 | 1.204    | 3.046  | 2.068 |
| 565          | 1.137  | 2.268 | 2.414    | 1.382 | 2.107 | 2.210    | 2.384  | 5.256 |
| 657          | 0.763  | 1.602 | 2.797    | 1.265 | 2.765 | 2.236    | 2.548  | 5.071 |
| 670          | 1.710  | 2.337 | 1.898    | 0.892 | 1.347 | 1.908    | 1.136  | 3.404 |
| 739          | 2.102  | 1.689 | 4.429    | 0.830 | 1.000 | 1.000    | 2.108  | 2.208 |
| 741          | 1.935  | 1.911 | 2.812    | 1.000 | 1.854 | 1.793    | 2.441  | 0.001 |
| 744          | 1.320  | 1.404 | 1.553    | 1.000 | 1.957 | 1.816    | 2.156  | 3.745 |
| 755          | 1.219  | 2.547 | 1.288    | 2.539 | 3.936 | 3.625    | 2.363  | 1.955 |
| 757          | 0.851  | 0.750 | 0.815    | 0.258 | 0.712 | 1.229    | 0.190  | 1.000 |
| 810          | 1.219  | 2.547 | 1.288    | 2.539 | 3.936 | 3.625    | 2.363  | 1.955 |
| 811          | 1.219  | 2.547 | 1.288    | 2.539 | 3.936 | 3.625    | 2.363  | 1.955 |
| 845          | 2.765  | 1.000 | 2.202    | 0.472 | 0.490 | 1.417    | 0.725  | 0.001 |
| 861          | 1.000  | 1.000 | 1.000    | 1.000 | 1.000 | 1.530    | 0.769  | 1.000 |
| 915          | 1.058  | 2.471 | 1.583    | 1.726 | 0.506 | 1.431    | 2.632  | 5.930 |
| 954          | 1.000  | 1.000 | 1.000    | 1.000 | 1.000 | 1.530    | 0.769  | 1.000 |
| 955          | 1.322  | 2.608 | 1.910    | 1.199 | 1.635 | 1.893    | 1.473  | 5.842 |
| 991          | 1.322  | 2.608 | 1.910    | 1.199 | 1.635 | 1.893    | 1.473  | 5.842 |
| 1035         | 1.710  | 2.337 | 1.898    | 0.892 | 1.347 | 1.908    | 1.136  | 3.404 |
| 1049         | 2.102  | 1.689 | 4.429    | 0.830 | 1.000 | 1.000    | 2.108  | 2.208 |
| 1050         | 1.322  | 2.608 | 1.910    | 1.199 | 1.635 | 1.893    | 1.473  | 5.842 |
| 1235         | 1.137  | 2.268 | 2.414    | 1.382 | 2.107 | 2.210    | 2.384  | 5.256 |
| 1292         | 1.000  | 1.518 | 1.980    | 1.518 | 2.526 | 1.588    | 1.865  | 2.251 |
| 1313         | 1.710  | 2.337 | 1.898    | 0.892 | 1.347 | 1.908    | 1.136  | 3.404 |

Table 13

|      |       |        |       |       |       |       |       |        |
|------|-------|--------|-------|-------|-------|-------|-------|--------|
| 1331 | 0.743 | 2.126  | 1.613 | 1.177 | 2.128 | 1.000 | 1.951 | 6.931  |
| 1334 | 1.224 | 3.432  | 2.806 | 1.328 | 2.470 | 2.592 | 1.929 | 6.973  |
| 1418 | 1.058 | 2.471  | 1.583 | 1.726 | 0.506 | 1.431 | 2.632 | 5.930  |
| 1419 | 1.137 | 2.268  | 2.414 | 1.382 | 2.107 | 2.210 | 2.384 | 5.256  |
| 1420 | 1.205 | 3.301  | 2.749 | 1.256 | 2.474 | 2.345 | 1.826 | 8.108  |
| 1477 | 1.205 | 3.301  | 2.749 | 1.256 | 2.474 | 2.345 | 1.826 | 8.108  |
| 1554 | 1.000 | 1.793  | 2.719 | 1.679 | 1.000 | 1.549 | 2.076 | 0.001  |
| 1579 | 0.741 | 2.181  | 2.494 | 1.504 | 1.511 | 1.831 | 2.064 | 4.421  |
| 1600 | 1.137 | 2.268  | 2.414 | 1.382 | 2.107 | 2.210 | 2.384 | 5.256  |
| 1639 | 1.348 | 2.222  | 2.506 | 1.355 | 1.670 | 2.535 | 1.556 | 8.411  |
| 1657 | 2.809 | 1.534  | 1.366 | 1.197 | 2.545 | 1.964 | 1.506 | 0.001  |
| 1679 | 1.000 | 1.793  | 2.719 | 1.679 | 1.000 | 1.549 | 2.076 | 0.001  |
| 1744 | 1.249 | 2.009  | 1.832 | 1.488 | 1.379 | 1.975 | 2.128 | 13.930 |
| 1847 | 1.781 | 2.929  | 2.183 | 2.759 | 3.853 | 3.092 | 2.051 | 7.549  |
| 1877 | 1.137 | 2.268  | 2.414 | 1.382 | 2.107 | 2.210 | 2.384 | 5.256  |
| 1880 | 1.000 | 3.187  | 2.564 | 0.756 | 1.226 | 3.841 | 3.201 | 16.724 |
| 1889 | 1.137 | 2.268  | 2.414 | 1.382 | 2.107 | 2.210 | 2.384 | 5.256  |
| 2009 | 1.058 | 2.471  | 1.583 | 1.726 | 0.506 | 1.431 | 2.632 | 5.930  |
| 2023 | 1.952 | 1.472  | 1.917 | 1.516 | 2.305 | 2.677 | 2.620 | 2.660  |
| 2029 | 0.741 | 2.181  | 2.494 | 1.504 | 1.511 | 1.831 | 2.064 | 4.421  |
| 2071 | 1.710 | 2.337  | 1.898 | 0.892 | 1.347 | 1.908 | 1.136 | 3.404  |
| 2077 | 1.710 | 2.337  | 1.898 | 0.892 | 1.347 | 1.908 | 1.136 | 3.404  |
| 2103 | 0.537 | 1.790  | 0.727 | 0.750 | 0.329 | 1.100 | 1.239 | 0.001  |
| 2109 | 1.710 | 2.337  | 1.898 | 0.892 | 1.347 | 1.908 | 1.136 | 3.404  |
| 2138 | 0.852 | 1.789  | 3.765 | 0.686 | 3.176 | 1.591 | 1.852 | 0.001  |
| 2143 | 2.044 | 17.760 | 4.034 | 1.988 | 0.026 | 3.908 | 2.394 | 42.662 |
| 2183 | 1.088 | 5.833  | 3.519 | 1.572 | 2.641 | 4.011 | 1.695 | 7.783  |
| 2185 | 1.219 | 2.547  | 1.288 | 2.539 | 3.936 | 3.625 | 2.363 | 1.955  |
| 2190 | 1.710 | 2.337  | 1.898 | 0.892 | 1.347 | 1.908 | 1.136 | 3.404  |
| 2200 | 1.137 | 2.268  | 2.414 | 1.382 | 2.107 | 2.210 | 2.384 | 5.256  |
| 2206 | 1.000 | 3.033  | 1.912 | 1.699 | 2.147 | 2.780 | 2.155 | 2.518  |
| 2220 | 0.337 | 2.339  | 0.768 | 0.563 | 0.359 | 1.242 | 1.492 | 1.000  |
| 2224 | 1.000 | 2.266  | 2.040 | 1.000 | 2.747 | 2.620 | 1.718 | 14.145 |
| 2249 | 1.137 | 2.268  | 2.414 | 1.382 | 2.107 | 2.210 | 2.384 | 5.256  |
| 2255 | 1.243 | 1.766  | 1.547 | 0.843 | 1.000 | 1.498 | 2.122 | 4.421  |
| 2265 | 5.268 | 1.518  | 2.253 | 3.678 | 0.766 | 1.565 | 1.000 | 1.853  |
| 2267 | 0.815 | 2.497  | 3.234 | 2.275 | 2.344 | 3.596 | 5.023 | 12.124 |
| 2281 | 1.128 | 0.885  | 1.237 | 1.434 | 3.327 | 3.206 | 1.355 | 0.001  |
| 2294 | 1.058 | 2.471  | 1.583 | 1.726 | 0.506 | 1.431 | 2.632 | 5.930  |
| 2300 | 1.058 | 2.471  | 1.583 | 1.726 | 0.506 | 1.431 | 2.632 | 5.930  |
| 2307 | 0.741 | 2.181  | 2.494 | 1.504 | 1.511 | 1.831 | 2.064 | 4.421  |
| 2309 | 1.240 | 2.239  | 2.841 | 1.000 | 2.270 | 2.614 | 0.583 | 5.244  |
| 2313 | 0.633 | 2.821  | 2.976 | 1.253 | 1.675 | 3.657 | 2.284 | 8.587  |
| 2314 | 1.348 | 2.222  | 2.506 | 1.355 | 1.670 | 2.535 | 1.556 | 8.411  |
| 2316 | 0.741 | 2.181  | 2.494 | 1.504 | 1.511 | 1.831 | 2.064 | 4.421  |
| 2327 | 1.000 | 1.801  | 1.978 | 1.000 | 3.188 | 1.607 | 2.276 | 13.068 |
| 2348 | 0.790 | 3.524  | 3.377 | 2.062 | 2.123 | 1.959 | 1.626 | 1.000  |

Table 13

|      |       |       |       |       |       |       |       |       |
|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 2384 | 0.001 | 1.346 | 1.831 | 1.000 | 1.646 | 1.944 | 1.549 | 1.000 |
|------|-------|-------|-------|-------|-------|-------|-------|-------|

Table 14

| SEQ ID<br>NO | P784     | P786  | P791     | P888  | P889  |
|--------------|----------|-------|----------|-------|-------|
| 18           | 1.000    | 1.000 | 4.202    | 1.464 | 2.147 |
| 22           | 1.000    | 1.276 | 14.034   | 4.139 | 3.640 |
| 127          | 1.708    | 2.247 | 1.000    | 0.441 | 0.001 |
| 139          | 1.391    | 1.857 | 1.000    | 0.402 | 1.000 |
| 148          | 1.708    | 2.247 | 1.000    | 0.441 | 0.001 |
| 155          | 1.328    | 1.421 | 2.456    | 1.910 | 2.069 |
| 246          | 1.243    | 1.679 | 2.228    | 2.333 | 1.774 |
| 272          | 0.819    | 1.632 | 2.808    | 5.465 | 2.307 |
| 273          | 1000.000 | 0.758 | 1.000    | 1.000 | 1.000 |
| 279          | 1.000    | 1.000 | 1.834    | 2.776 | 1.636 |
| 298          | 1000.000 | 0.758 | 1.000    | 1.000 | 1.000 |
| 329          | 1.000    | 1.000 | 1.000    | 0.642 | 1.000 |
| 353          | 1.328    | 1.421 | 2.456    | 1.910 | 2.069 |
| 354          | 1.000    | 1.416 | 2.862    | 2.690 | 1.645 |
| 381          | 1.708    | 2.247 | 1.000    | 0.441 | 0.001 |
| 389          | 1.000    | 1.000 | 1.000    | 0.642 | 1.000 |
| 405          | 1.000    | 1.821 | 1.628    | 2.276 | 2.501 |
| 406          | 1.000    | 1.821 | 1.628    | 2.276 | 2.501 |
| 412          | 1.000    | 1.888 | 1.915    | 2.276 | 1.481 |
| 421          | 3.336    | 1.677 | 2.208    | 1.000 | 1.976 |
| 465          | 1.391    | 1.857 | 1.000    | 0.402 | 1.000 |
| 534          | 1.000    | 1.821 | 1.628    | 2.276 | 2.501 |
| 538          | 1.000    | 1.629 | 2.152    | 1.000 | 1.792 |
| 565          | 1.328    | 1.421 | 2.456    | 1.910 | 2.069 |
| 657          | 1.000    | 1.997 | 2.083    | 3.178 | 3.444 |
| 670          | 1.000    | 1.780 | 1.000    | 2.177 | 2.258 |
| 739          | 1.356    | 0.696 | 1.000    | 1.000 | 1.463 |
| 741          | 2.324    | 1.000 | 2.379    | 1.407 | 2.833 |
| 744          | 2.137    | 1.934 | 2.482    | 2.035 | 3.980 |
| 755          | 0.796    | 1.000 | 1.737    | 1.000 | 2.218 |
| 757          | 2.531    | 3.138 | 0.395    | 1.000 | 1.000 |
| 810          | 0.796    | 1.000 | 1.737    | 1.000 | 2.218 |
| 811          | 0.796    | 1.000 | 1.737    | 1.000 | 2.218 |
| 845          | 1000.000 | 1.984 | 1000.000 | 1.374 | 1.000 |
| 861          | 3.031    | 1.000 | 1.000    | 1.000 | 1.000 |
| 915          | 1.000    | 1.000 | 4.202    | 1.464 | 2.147 |
| 954          | 3.031    | 1.000 | 1.000    | 1.000 | 1.000 |
| 955          | 0.876    | 1.781 | 2.424    | 4.143 | 1.977 |
| 991          | 0.876    | 1.781 | 2.424    | 4.143 | 1.977 |
| 1035         | 1.000    | 1.780 | 1.000    | 2.177 | 2.258 |
| 1049         | 1.356    | 0.696 | 1.000    | 1.000 | 1.463 |
| 1050         | 0.876    | 1.781 | 2.424    | 4.143 | 1.977 |
| 1235         | 1.328    | 1.421 | 2.456    | 1.910 | 2.069 |
| 1292         | 1.000    | 1.000 | 1.992    | 2.144 | 1.615 |
| 1313         | 1.000    | 1.780 | 1.000    | 2.177 | 2.258 |

Table 14

|      |       |       |          |       |       |
|------|-------|-------|----------|-------|-------|
| 1331 | 1.290 | 1.000 | 1.000    | 1.995 | 2.203 |
| 1334 | 1.000 | 1.416 | 2.862    | 2.690 | 1.645 |
| 1418 | 1.000 | 1.000 | 4.202    | 1.464 | 2.147 |
| 1419 | 1.328 | 1.421 | 2.456    | 1.910 | 2.069 |
| 1420 | 0.816 | 1.000 | 2.196    | 2.446 | 1.518 |
| 1477 | 0.816 | 1.000 | 2.196    | 2.446 | 1.518 |
| 1554 | 1.585 | 1.889 | 2.178    | 1.806 | 1.867 |
| 1579 | 1.243 | 1.679 | 2.228    | 2.333 | 1.774 |
| 1600 | 1.328 | 1.421 | 2.456    | 1.910 | 2.069 |
| 1639 | 0.819 | 1.632 | 2.808    | 5.465 | 2.307 |
| 1657 | 2.810 | 2.638 | 1.976    | 1.491 | 2.955 |
| 1679 | 1.585 | 1.889 | 2.178    | 1.806 | 1.867 |
| 1744 | 1.253 | 1.994 | 1.874    | 3.193 | 2.663 |
| 1847 | 1.559 | 2.762 | 5.043    | 4.135 | 3.753 |
| 1877 | 1.328 | 1.421 | 2.456    | 1.910 | 2.069 |
| 1880 | 1.306 | 1.940 | 2.293    | 3.897 | 1.624 |
| 1889 | 1.328 | 1.421 | 2.456    | 1.910 | 2.069 |
| 2009 | 1.000 | 1.000 | 4.202    | 1.464 | 2.147 |
| 2023 | 1.511 | 1.357 | 1.632    | 1.891 | 1.895 |
| 2029 | 1.243 | 1.679 | 2.228    | 2.333 | 1.774 |
| 2071 | 1.000 | 1.780 | 1.000    | 2.177 | 2.258 |
| 2077 | 1.000 | 1.780 | 1.000    | 2.177 | 2.258 |
| 2103 | 0.573 | 2.678 | 1.000    | 2.507 | 3.278 |
| 2109 | 1.000 | 1.780 | 1.000    | 2.177 | 2.258 |
| 2138 | 7.866 | 1.000 | 1000.000 | 1.719 | 1.000 |
| 2143 | 2.625 | 2.744 | 4.155    | 2.105 | 4.438 |
| 2183 | 1.000 | 2.139 | 3.014    | 3.159 | 3.381 |
| 2185 | 0.796 | 1.000 | 1.737    | 1.000 | 2.218 |
| 2190 | 1.000 | 1.780 | 1.000    | 2.177 | 2.258 |
| 2200 | 1.328 | 1.421 | 2.456    | 1.910 | 2.069 |
| 2206 | 1.489 | 2.750 | 2.910    | 5.049 | 4.006 |
| 2220 | 0.419 | 3.014 | 0.575    | 2.397 | 3.558 |
| 2224 | 1.000 | 1.815 | 2.513    | 3.487 | 2.180 |
| 2249 | 1.328 | 1.421 | 2.456    | 1.910 | 2.069 |
| 2255 | 1.000 | 1.493 | 2.186    | 1.000 | 2.222 |
| 2265 | 1.267 | 3.638 | 1.623    | 5.889 | 3.339 |
| 2267 | 1.746 | 2.363 | 5.515    | 2.674 | 3.637 |
| 2281 | 2.399 | 3.587 | 3.625    | 2.567 | 2.417 |
| 2294 | 1.000 | 1.000 | 4.202    | 1.464 | 2.147 |
| 2300 | 1.000 | 1.000 | 4.202    | 1.464 | 2.147 |
| 2307 | 1.243 | 1.679 | 2.228    | 2.333 | 1.774 |
| 2309 | 0.397 | 1.000 | 1.472    | 5.315 | 2.250 |
| 2313 | 1.000 | 1.939 | 2.505    | 4.525 | 2.674 |
| 2314 | 0.819 | 1.632 | 2.808    | 5.465 | 2.307 |
| 2316 | 1.243 | 1.679 | 2.228    | 2.333 | 1.774 |
| 2327 | 1.295 | 1.658 | 2.836    | 2.766 | 2.873 |
| 2348 | 2.167 | 2.157 | 3.410    | 2.828 | 3.794 |



Table 14

|      |       |       |       |       |       |
|------|-------|-------|-------|-------|-------|
| 2384 | 1.352 | 1.000 | 2.727 | 0.583 | 1.000 |
|------|-------|-------|-------|-------|-------|

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
|--------|---------|---------------------------|-------------|---------------|-----------|
| 1      | 734646  | RTA22200010F.k.10.1.P.Seq | F           | M00056481:62  | CH16COP   |
| 2      | 400221  | RTA22200001F.a.17.1.P.Seq | F           | M00042528:611 | CH15CON   |
| 3      | 205329  | RTA22200006F.d.09.2.P.Seq | F           | M00056020:410 | CH15CON   |
| 4      | 446680  | RTA22200001F.f.07.1.P.Seq | F           | M00042693:54  | CH15CON   |
| 5      | 1261    | RTA22200021F.j.18.3.P.Seq | F           | M00054812:15  | CH17COHLV |
| 6      | 400258  | RTA22200011F.k.23.1.P.Seq | F           | M00056617:86  | CH16COP   |
| 7      | 450559  | RTA22200005F.e.21.1.P.Seq | F           | M00055882:16  | CH15CON   |
| 8      | 450959  | RTA22200012F.e.11.1.P.Seq | F           | M00056703:46  | CH16COP   |
| 9      | 451794  | RTA22200007F.l.16.1.P.Seq | F           | M00056247:76  | CH15CON   |
| 10     | 415058  | RTA22200020F.d.11.1.P.Seq | F           | M00054591:87  | CH17COHLV |
| 11     | 31506   | RTA22200012F.b.08.1.P.Seq | F           | M00056670:111 | CH16COP   |
| 12     | 417155  | RTA22200002F.f.10.1.P.Seq | F           | M00055466:28  | CH15CON   |
| 13     | 448925  | RTA22200019F.e.21.1.P.Seq | F           | M00043507:45  | CH17COHLV |
| 14     | 11329   | RTA22200006F.d.10.2.P.Seq | F           | M00056020:47  | CH15CON   |
| 15     | 650422  | RTA22200001F.n.14.1.P.Seq | F           | M00042911:83  | CH15CON   |
| 16     | 6863    | RTA22200229F.f.13.1.P.Seq | F           | M00006967:25  | CH02COH   |
| 17     | 449690  | RTA22200002F.g.18.1.P.Seq | F           | M00055495:45  | CH15CON   |
| 18     | 724616  | RTA22200016F.j.23.1.P.Seq | F           | M00057236:86  | CH16COP   |
| 19     | 549722  | RTA22200025F.m.01.2.P.Seq | F           | M00055383:24  | CH17COHLV |
| 20     | 549722  | RTA22200025F.l.24.1.P.Seq | F           | M00055383:24  | CH17COHLV |
| 21     | 448110  | RTA22200018F.m.04.1.P.Seq | F           | M00043354:31  | CH17COHLV |
| 22     | 515631  | RTA22200010F.j.14.1.P.Seq | F           | M00056434:38  | CH16COP   |
| 23     | 11881   | RTA22200233F.k.04.1.P.Seq | F           | M00008099:78  | CH03MAH   |
| 24     | 650856  | RTA22200012F.n.24.1.P.Seq | F           | M00056772:14  | CH16COP   |
| 25     | 449701  | RTA22200012F.f.21.1.P.Seq | F           | M00056710:89  | CH16COP   |
| 26     | 651073  | RTA22200007F.l.06.1.P.Seq | F           | M00056243:710 | CH15CON   |
| 27     | 10340   | RTA22200234F.b.07.1.P.Seq | F           | M00022189:23  | CH03MAH   |
| 28     | 648310  | RTA22200007F.m.04.1.P.Seq | F           | M00056252:88  | CH15CON   |
| 29     | 730336  | RTA22200013F.l.02.1.P.Seq | F           | M00056879:811 | CH16COP   |
| 30     | 3060    | RTA22200018F.b.10.1.P.Seq | F           | M00042444:88  | CH17COHLV |
| 31     | 453016  | RTA22200010F.l.06.1.P.Seq | F           | M00056485:212 | CH16COP   |
| 32     | 508931  | RTA22200024F.i.13.1.P.Seq | F           | M00055209:410 | CH17COHLV |
| 33     | 185461  | RTA22200242F.b.06.1.P.Seq | F           | M00026975:23  | CH04MAL   |
| 34     | 452530  | RTA22200015F.n.11.1.P.Seq | F           | M00057131:21  | CH16COP   |
| 35     | 448925  | RTA22200026F.d.02.1.P.Seq | F           | M00055419:71  | CH17COHLV |
| 36     | 1013    | RTA22200005F.m.06.1.P.Seq | F           | M00055945:811 | CH15CON   |
| 37     | 6545    | RTA22200241F.d.23.1.P.Seq | F           | M00026879:410 | CH04MAL   |
| 38     | 449891  | RTA22200001F.b.23.1.P.Seq | F           | M00042540:85  | CH15CON   |
| 39     | 4045    | RTA22200227F.n.06.1.P.Seq | F           | M00006740:71  | CH02COH   |
| 40     | 404475  | RTA22200002F.b.23.1.P.Seq | F           | M00055438:810 | CH15CON   |
| 41     | 650297  | RTA22200001F.n.10.1.P.Seq | F           | M00042909:74  | CH15CON   |
| 42     | 650493  | RTA22200005F.n.03.1.P.Seq | F           | M00055959:112 | CH15CON   |
| 43     | 644884  | RTA22200007F.k.04.1.P.Seq | F           | M00056232:712 | CH15CON   |
| 44     | 452212  | RTA22200021F.k.21.3.P.Seq | F           | M00054821:311 | CH17COHLV |
| 45     | 402727  | RTA22200010F.n.09.1.P.Seq | F           | M00056505:82  | CH16COP   |
| 46     | 645194  | RTA22200003F.m.24.1.P.Seq | F           | M00055709:79  | CH15CON   |
| 47     | 447501  | RTA22200013F.f.14.1.P.Seq | F           | M00056839:72  | CH16COP   |
| 48     | 556326  | RTA22200003F.o.06.1.P.Seq | F           | M00055723:28  | CH15CON   |
| 49     | 447035  | RTA22200001F.e.15.1.P.Seq | F           | M00042570:82  | CH15CON   |
| 50     | 2551    | RTA22200012F.o.07.1.P.Seq | F           | M00056774:12  | CH16COP   |
| 51     | 736154  | RTA22200010F.i.17.1.P.Seq | F           | M00056424:110 | CH16COP   |
| 52     | 452028  | RTA22200018F.k.24.1.P.Seq | F           | M00043345:33  | CH17COHLV |
| 53     | 447441  | RTA22200001F.m.13.1.P.Seq | F           | M00042902:34  | CH15CON   |
| 54     | 11028   | RTA22200230F.g.12.1.P.Seq | F           | M00007151:211 | CH02COH   |

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
|--------|---------|---------------------------|-------------|---------------|-----------|
| 55     | 640974  | RTA22200002F.b.07.1.P.Seq | F           | M00055429:85  | CH15CON   |
| 56     | 555103  | RTA22200022F.m.11.1.P.Seq | F           | M00054973:110 | CH17COHLV |
| 57     | 446789  | RTA22200001F.c.12.1.P.Seq | F           | M00042547:62  | CH15CON   |
| 58     | 644884  | RTA22200007F.k.04.2.P.Seq | F           | M00056232:712 | CH15CON   |
| 59     | 9029    | RTA22200222F.g.08.1.P.Seq | F           | M00003792:111 | CH01COH   |
| 60     | 419255  | RTA22200007F.l.14.2.P.Seq | F           | M00056246:77  | CH15CON   |
| 61     | 4309    | RTA22200225F.j.15.1.P.Seq | F           | M00005491:23  | CH02COH   |
| 62     | 554069  | RTA22200022F.p.16.1.P.Seq | F           | M00055008:28  | CH17COHLV |
| 63     | 4330    | RTA22200227F.i.16.1.P.Seq | F           | M00006686:27  | CH02COH   |
| 64     | 644903  | RTA22200015F.i.22.1.P.Seq | F           | M00057103:511 | CH16COP   |
| 65     | 549395  | RTA22200024F.d.04.1.P.Seq | F           | M00055163:32  | CH17COHLV |
| 66     | 4974    | RTA22200225F.k.17.1.P.Seq | F           | M00005500:53  | CH02COH   |
| 67     | 447466  | RTA22200006F.h.03.2.P.Seq | F           | M00056053:19  | CH15CON   |
| 68     | 645073  | RTA22200004F.o.13.1.P.Seq | F           | M00055829:79  | CH15CON   |
| 69     | 447978  | RTA22200025F.i.14.1.P.Seq | F           | M00055361:81  | CH17COHLV |
| 70     | 607430  | RTA22200004F.p.22.1.P.Seq | F           | M00055841:45  | CH15CON   |
| 71     | 556198  | RTA22200014F.h.02.2.P.Seq | F           | M00056972:65  | CH16COP   |
| 72     | 450323  | RTA22200018F.l.23.1.P.Seq | F           | M00043352:59  | CH17COHLV |
| 73     | 21205   | RTA22200249F.g.01.1.P.Seq | F           | M00027660:53  | CH04MAL   |
| 74     | 561109  | RTA22200011F.m.10.1.P.Seq | F           | M00056631:43  | CH16COP   |
| 75     | 446673  | RTA22200001F.a.14.1.P.Seq | F           | M00042525:51  | CH15CON   |
| 76     | 456026  | RTA22200004F.m.04.1.P.Seq | F           | M00055817:38  | CH15CON   |
| 77     | 449142  | RTA22200009F.c.13.2.P.Seq | F           | M00042513:112 | CH16COP   |
| 78     | 5830    | RTA22200010F.c.23.1.P.Seq | F           | M00056370:72  | CH16COP   |
| 79     | 554109  | RTA22200026F.g.07.1.P.Seq | F           | M00055484:77  | CH17COHLV |
| 80     | 595506  | RTA22200010F.l.16.1.P.Seq | F           | M00056491:78  | CH16COP   |
| 81     | 453981  | RTA22200010F.p.11.1.P.Seq | F           | M00056519:81  | CH16COP   |
| 82     | 642461  | RTA22200016F.j.11.1.P.Seq | F           | M00057233:54  | CH16COP   |
| 83     | 556198  | RTA22200014F.h.02.1.P.Seq | F           | M00056972:65  | CH16COP   |
| 84     | 2082    | RTA22200009F.g.21.1.P.Seq | F           | M00042801:26  | CH16COP   |
| 85     | 549435  | RTA22200007F.j.06.1.P.Seq | F           | M00056223:73  | CH15CON   |
| 86     | 2286    | RTA22200230F.j.03.1.P.Seq | F           | M00007177:511 | CH02COH   |
| 87     | 2737    | RTA22200023F.d.17.1.P.Seq | F           | M00055039:52  | CH17COHLV |
| 88     | 728115  | RTA22200013F.f.13.1.P.Seq | F           | M00056839:71  | CH16COP   |
| 89     | 650856  | RTA22200012F.o.01.1.P.Seq | F           | M00056772:14  | CH16COP   |
| 90     | 650476  | RTA22200005F.g.21.1.P.Seq | F           | M00055891:14  | CH15CON   |
| 91     | 535208  | RTA22200005F.b.02.1.P.Seq | F           | M00055852:17  | CH15CON   |
| 92     | 733849  | RTA22200011F.m.24.1.P.Seq | F           | M00056638:48  | CH16COP   |
| 93     | 447978  | RTA22200009F.g.19.1.P.Seq | F           | M00042800:13  | CH16COP   |
| 94     | 729483  | RTA22200012F.l.12.1.P.Seq | F           | M00056728:45  | CH16COP   |
| 95     | 12018   | RTA22200249F.e.19.1.P.Seq | F           | M00027641:11  | CH04MAL   |
| 96     | 4747    | RTA22200227F.d.18.1.P.Seq | F           | M00006630:311 | CH02COH   |
| 97     | 4747    | RTA22200225F.a.23.1.P.Seq | F           | M00005415:612 | CH02COH   |
| 98     | 185577  | RTA22200240F.i.02.1.P.Seq | F           | M00023409:78  | CH04MAL   |
| 99     | 4126    | RTA22200231F.m.17.1.P.Seq | F           | M00007990:43  | CH03MAH   |
| 100    | 11456   | RTA22200226F.l.08.1.P.Seq | F           | M00005765:67  | CH02COH   |
| 101    | 729851  | RTA22200010F.o.03.1.P.Seq | F           | M00056508:210 | CH16COP   |
| 102    | 449849  | RTA22200019F.b.07.1.P.Seq | F           | M00043394:26  | CH17COHLV |
| 103    | 2490    | RTA22200237F.e.17.1.P.Seq | F           | M00022720:111 | CH03MAH   |
| 104    | 549041  | RTA22200021F.h.21.3.P.Seq | F           | M00054779:67  | CH17COHLV |
| 105    | 11881   | RTA22200237F.i.01.1.P.Seq | F           | M00022750:17  | CH03MAH   |
| 106    | 724296  | RTA22200014F.o.10.1.P.Seq | F           | M00057025:18  | CH16COP   |
| 107    | 726173  | RTA22200014F.o.01.1.P.Seq | F           | M00057023:89  | CH16COP   |
| 108    | 2423    | RTA22200236F.h.20.1.P.Seq | F           | M00022641:62  | CH03MAH   |

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY |
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| 109    | 556250  | RTA22200014F.l.09.1.P.Seq | F           | M00057005:31  | CH16COP |
| 110    | 643594  | RTA22200005F.b.01.1.P.Seq | F           | M00055851:612 | CH15CON |
| 111    | 11881   | RTA22200237F.h.24.1.P.Seq | F           | M00022750:17  | CH03MAH |
| 112    | 7436    | RTA22200237F.j.11.1.P.Seq | F           | M00022791:611 | CH03MAH |
| 113    | 2110    | RTA22200235F.a.19.1.P.Seq | F           | M00022415:26  | CH03MAH |
| 114    | 10340   | RTA22200235F.e.13.1.P.Seq | F           | M00022457:75  | CH03MAH |
| 115    | 643594  | RTA22200005F.a.24.1.P.Seq | F           | M00055851:612 | CH15CON |
| 116    | 447035  | RTA22200005F.d.11.1.P.Seq | F           | M00055872:412 | CH15CON |
| 117    | 402707  | RTA22200007F.c.21.1.P.Seq | F           | M00056160:18  | CH15CON |
| 118    | 645799  | RTA22200014F.d.22.1.P.Seq | F           | M00056952:84  | CH16COP |
| 119    | 171511  | RTA22200014F.c.05.1.P.Seq | F           | M00056939:22  | CH16COP |
| 120    | 451607  | RTA22200014F.h.15.2.P.Seq | F           | M00056976:610 | CH16COP |
| 121    | 3138    | RTA22200242F.k.08.1.P.Seq | F           | M00027039:59  | CH04MAL |
| 122    | 2988    | RTA22200229F.h.11.1.P.Seq | F           | M00006987:711 | CH02COH |
| 123    | 447326  | RTA22200014F.g.22.1.P.Seq | F           | M00056969:21  | CH16COP |
| 124    | 561734  | RTA22200014F.f.10.1.P.Seq | F           | M00056961:712 | CH16COP |
| 125    | 454999  | RTA22200009F.a.13.2.P.Seq | F           | M00042432:810 | CH16COP |
| 126    | 185652  | RTA22200242F.i.12.1.P.Seq | F           | M00027028:37  | CH04MAL |
| 127    | 6725    | RTA22200232F.d.17.1.P.Seq | F           | M00021947:36  | CH03MAH |
| 128    | 726644  | RTA22200013F.i.19.1.P.Seq | F           | M00056864:89  | CH16COP |
| 129    | 11012   | RTA22200227F.n.21.1.P.Seq | F           | M00006745:12  | CH02COH |
| 130    | 726377  | RTA22200013F.i.03.1.P.Seq | F           | M00056860:612 | CH16COP |
| 131    | 735326  | RTA22200013F.l.19.1.P.Seq | F           | M00056886:311 | CH16COP |
| 132    | 650845  | RTA22200013F.l.13.1.P.Seq | F           | M00056884:36  | CH16COP |
| 133    | 9048    | RTA22200222F.l.18.1.P.Seq | F           | M00004101:81  | CH01COH |
| 134    | 732254  | RTA22200012F.b.15.1.P.Seq | F           | M00056674:84  | CH16COP |
| 135    | 452052  | RTA22200013F.i.16.1.P.Seq | F           | M00056863:53  | CH16COP |
| 136    | 554079  | RTA22200012F.j.17.1.P.Seq | F           | M00056735:28  | CH16COP |
| 137    | 9049    | RTA22200222F.i.05.1.P.Seq | F           | M00003948:212 | CH01COH |
| 138    | 1307    | RTA22200244F.n.16.1.P.Seq | F           | M00027222:39  | CH04MAL |
| 139    | 139730  | RTA22200242F.g.11.1.P.Seq | F           | M00027016:76  | CH04MAL |
| 140    | 7750    | RTA22200241F.f.24.1.P.Seq | F           | M00026899:711 | CH04MAL |
| 141    | 8050    | RTA22200227F.p.20.1.P.Seq | F           | M00006761:49  | CH02COH |
| 142    | 725222  | RTA22200013F.k.24.1.P.Seq | F           | M00056879:55  | CH16COP |
| 143    | 3275    | RTA22200235F.j.22.2.P.Seq | F           | M00022516:59  | CH03MAH |
| 144    | 7424    | RTA22200235F.c.12.1.P.Seq | F           | M00022430:44  | CH03MAH |
| 145    | 8953    | RTA22200241F.c.05.1.P.Seq | F           | M00026866:88  | CH04MAL |
| 146    | 8966    | RTA22200243F.c.04.1.P.Seq | F           | M00027088:86  | CH04MAL |
| 147    | 530883  | RTA22200013F.i.22.1.P.Seq | F           | M00056866:55  | CH16COP |
| 148    | 6725    | RTA22200238F.l.09.1.P.Seq | F           | M00022973:78  | CH03MAH |
| 149    | 4439    | RTA22200222F.m.24.1.P.Seq | F           | M00004167:411 | CH01COH |
| 150    | 648472  | RTA22200012F.g.07.1.P.Seq | F           | M00056712:17  | CH16COP |
| 151    | 735346  | RTA22200011F.l.03.1.P.Seq | F           | M00056618:22  | CH16COP |
| 152    | 732121  | RTA22200011F.j.05.1.P.Seq | F           | M00056600:87  | CH16COP |
| 153    | 650337  | RTA22200005F.h.15.1.P.Seq | F           | M00055900:25  | CH15CON |
| 154    | 533588  | RTA22200005F.p.05.1.P.Seq | F           | M00055981:17  | CH15CON |
| 155    | 649667  | RTA22200007F.p.20.1.P.Seq | F           | M00056290:82  | CH15CON |
| 156    | 394436  | RTA22200015F.p.07.1.P.Seq | F           | M00057145:45  | CH16COP |
| 157    | 649354  | RTA22200007F.h.13.1.P.Seq | F           | M00056210:53  | CH15CON |
| 158    | 2022    | RTA22200240F.e.10.1.P.Seq | F           | M00023347:312 | CH04MAL |
| 159    | 561359  | RTA22200003F.m.08.1.P.Seq | F           | M00055703:26  | CH15CON |
| 160    | 7607    | RTA22200225F.m.20.1.P.Seq | F           | M00005520:512 | CH02COH |
| 161    | 7750    | RTA22200242F.f.06.1.P.Seq | F           | M00027006:81  | CH04MAL |
| 162    | 410554  | RTA22200012F.i.21.1.P.Seq | F           | M00056729:812 | CH16COP |

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
|--------|---------|---------------------------|-------------|---------------|-----------|
| 163    | 2315    | RTA22200230F.e.24.1.P.Seq | F           | M00007135:211 | CH02COH   |
| 164    | 561734  | RTA22200014F.f.10.2.P.Seq | F           | M00056961:712 | CH16COP   |
| 165    | 4420    | RTA22200229F.f.02.1.P.Seq | F           | M00006964:111 | CH02COH   |
| 166    | 559663  | RTA22200012F.d.17.1.P.Seq | F           | M00056697:53  | CH16COP   |
| 167    | 7082    | RTA22200235F.p.01.2.P.Seq | F           | M00022565:15  | CH03MAH   |
| 168    | 2315    | RTA22200230F.f.01.1.P.Seq | F           | M00007135:211 | CH02COH   |
| 169    | 650472  | RTA22200012F.j.21.1.P.Seq | F           | M00056737:77  | CH16COP   |
| 170    | 6482    | RTA22200230F.a.10.1.P.Seq | F           | M00007096:51  | CH02COH   |
| 171    | 4584    | RTA22200230F.a.09.1.P.Seq | F           | M00007096:52  | CH02COH   |
| 172    | 453846  | RTA22200012F.b.14.1.P.Seq | F           | M00056674:55  | CH16COP   |
| 173    | 650820  | RTA22200011F.p.05.1.P.Seq | F           | M00056656:83  | CH16COP   |
| 174    | 642906  | RTA22200005F.g.06.1.P.Seq | F           | M00055887:36  | CH15CON   |
| 175    | 448805  | RTA22200005F.i.23.1.P.Seq | F           | M00055912:35  | CH15CON   |
| 176    | 649667  | RTA22200006F.k.18.2.P.Seq | F           | M00056082:66  | CH15CON   |
| 177    | 735786  | RTA22200012F.m.12.1.P.Seq | F           | M00056758:35  | CH16COP   |
| 178    | 121457  | RTA22200012F.p.18.1.P.Seq | F           | M00056785:68  | CH16COP   |
| 179    | 372960  | RTA22200012F.m.06.1.P.Seq | F           | M00056756:28  | CH16COP   |
| 180    | 120049  | RTA22200012F.j.10.1.P.Seq | F           | M00056733:49  | CH16COP   |
| 181    | 648996  | RTA22200006F.p.20.2.P.Seq | F           | M00056136:211 | CH15CON   |
| 182    | 3765    | RTA22200226F.a.16.1.P.Seq | F           | M00005589:67  | CH02COH   |
| 183    | 462642  | RTA22200008F.e.08.1.P.Seq | F           | M00056342:75  | CH15CON   |
| 184    | 727181  | RTA22200016F.f.18.1.P.Seq | F           | M00057208:12  | CH16COP   |
| 185    | 649259  | RTA22200006F.k.06.2.P.Seq | F           | M00056079:412 | CH15CON   |
| 186    | 649717  | RTA22200007F.e.08.1.P.Seq | F           | M00056180:89  | CH15CON   |
| 187    | 736860  | RTA22200009F.p.24.1.P.Seq | F           | M00056351:46  | CH16COP   |
| 188    | 729175  | RTA22200012F.o.05.1.P.Seq | F           | M00056773:811 | CH16COP   |
| 189    | 642906  | RTA22200005F.f.14.1.P.Seq | F           | M00055884:15  | CH15CON   |
| 190    | 4420    | RTA22200232F.l.13.1.P.Seq | F           | M00022123:45  | CH03MAH   |
| 191    | 2420    | RTA22200226F.c.12.1.P.Seq | F           | M00005619:19  | CH02COH   |
| 192    | 648109  | RTA22200015F.o.03.1.P.Seq | F           | M00057135:84  | CH16COP   |
| 193    | 2334    | RTA22200011F.p.20.1.P.Seq | F           | M00056661:19  | CH16COP   |
| 194    | 639705  | RTA22200003F.o.14.1.P.Seq | F           | M00055724:49  | CH15CON   |
| 195    | 551907  | RTA22200003F.n.12.1.P.Seq | F           | M00055717:64  | CH15CON   |
| 196    | 561382  | RTA22200003F.m.20.1.P.Seq | F           | M00055706:71  | CH15CON   |
| 197    | 595506  | RTA22200022F.a.01.1.P.Seq | F           | M00054866:77  | CH17COHLV |
| 198    | 499424  | RTA22200013F.f.16.1.P.Seq | F           | M00056839:61  | CH16COP   |
| 199    | 735477  | RTA22200016F.f.08.1.P.Seq | F           | M00057203:56  | CH16COP   |
| 200    | 734370  | RTA22200013F.g.21.1.P.Seq | F           | M00056848:37  | CH16COP   |
| 201    | 779     | RTA22200230F.c.07.1.P.Seq | F           | M00007112:112 | CH02COH   |
| 202    | 649143  | RTA22200007F.o.24.1.P.Seq | F           | M00056283:52  | CH15CON   |
| 203    | 489     | RTA22200012F.m.16.1.P.Seq | F           | M00056759:611 | CH16COP   |
| 204    | 2994    | RTA22200229F.k.24.1.P.Seq | F           | M00007028:34  | CH02COH   |
| 205    | 2994    | RTA22200229F.l.01.1.P.Seq | F           | M00007028:34  | CH02COH   |
| 206    | 11147   | RTA22200227F.g.12.1.P.Seq | F           | M00006664:29  | CH02COH   |
| 207    | 549395  | RTA22200021F.d.19.2.P.Seq | F           | M00054745:13  | CH17COHLV |
| 208    | 559806  | RTA22200022F.h.11.1.P.Seq | F           | M00054937:63  | CH17COHLV |
| 209    | 452238  | RTA22200009F.k.17.2.P.Seq | F           | M00042838:511 | CH16COP   |
| 210    | 225914  | RTA22200023F.j.18.1.P.Seq | F           | M00055075:85  | CH17COHLV |
| 211    | 463480  | RTA22200022F.p.18.1.P.Seq | F           | M00055008:29  | CH17COHLV |
| 212    | 184725  | RTA22200007F.o.17.1.P.Seq | F           | M00056281:54  | CH15CON   |
| 213    | 557401  | RTA22200023F.g.22.1.P.Seq | F           | M00055056:26  | CH17COHLV |
| 214    | 455155  | RTA22200003F.f.04.1.P.Seq | F           | M00055633:711 | CH15CON   |
| 215    | 551117  | RTA22200023F.p.03.1.P.Seq | F           | M00055131:210 | CH17COHLV |
| 216    | 7659    | RTA22200231F.g.16.1.P.Seq | F           | M00007964:71  | CH03MAH   |

Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
|--------|---------|---------------------------|-------------|---------------|-----------|
| 217    | 729295  | RTA22200017F.b.14.1.P.Seq | F           | M00057306:87  | CH16COP   |
| 218    | 450429  | RTA22200007F.f.20.1.P.Seq | F           | M00056195:38  | CH15CON   |
| 219    | 450148  | RTA22200022F.f.21.1.P.Seq | F           | M00054927:58  | CH17COHLV |
| 220    | 380412  | RTA22200006F.c.23.2.P.Seq | F           | M00056016:46  | CH15CON   |
| 221    | 446614  | RTA22200001F.e.01.1.P.Seq | F           | M00042563:52  | CH15CON   |
| 222    | 555911  | RTA22200023F.f.21.1.P.Seq | F           | M00055050:74  | CH17COHLV |
| 223    | 450828  | RTA22200022F.g.23.1.P.Seq | F           | M00054935:74  | CH17COHLV |
| 224    | 28      | RTA22200006F.a.17.2.P.Seq | F           | M00055999:710 | CH15CON   |
| 225    | 446450  | RTA22200001F.h.15.1.P.Seq | F           | M00042717:44  | CH15CON   |
| 226    | 452026  | RTA22200010F.g.18.1.P.Seq | F           | M00056411:54  | CH16COP   |
| 227    | 643594  | RTA22200006F.a.18.2.P.Seq | F           | M00055999:76  | CH15CON   |
| 228    | 1905    | RTA22200012F.o.14.1.P.Seq | F           | M00056775:38  | CH16COP   |
| 229    | 651073  | RTA22200007F.l.06.2.P.Seq | F           | M00056243:710 | CH15CON   |
| 230    | 553705  | RTA22200006F.a.23.2.P.Seq | F           | M00056001:27  | CH15CON   |
| 231    | 521840  | RTA22200004F.j.15.1.P.Seq | F           | M00055802:84  | CH15CON   |
| 232    | 648689  | RTA22200006F.o.07.2.P.Seq | F           | M00056111:82  | CH15CON   |
| 233    | 447858  | RTA22200022F.d.10.1.P.Seq | F           | M00054895:49  | CH17COHLV |
| 234    | 556198  | RTA22200010F.d.10.1.P.Seq | F           | M00056374:82  | CH16COP   |
| 235    | 394436  | RTA22200003F.i.09.1.P.Seq | F           | M00055662:14  | CH15CON   |
| 236    | 639651  | RTA22200003F.g.12.1.P.Seq | F           | M00055647:24  | CH15CON   |
| 237    | 499424  | RTA22200010F.d.18.1.P.Seq | F           | M00056382:82  | CH16COP   |
| 238    | 468109  | RTA22200001F.p.12.1.P.Seq | F           | M00054915:57  | CH15CON   |
| 239    | 185701  | RTA22200248F.g.23.1.P.Seq | F           | M00027561:34  | CH04MAL   |
| 240    | 451811  | RTA22200006F.h.04.2.P.Seq | F           | M00056053:412 | CH15CON   |
| 241    | 730670  | RTA22200009F.m.14.1.P.Seq | F           | M00042850:34  | CH16COP   |
| 242    | 172013  | RTA22200021F.l.15.3.P.Seq | F           | M00054826:310 | CH17COHLV |
| 243    | 449142  | RTA22200001F.f.10.1.P.Seq | F           | M00042694:52  | CH15CON   |
| 244    | 446964  | RTA22200001F.h.23.1.P.Seq | F           | M00042721:77  | CH15CON   |
| 245    | 414739  | RTA22200022F.i.16.1.P.Seq | F           | M00054945:77  | CH17COHLV |
| 246    | 641124  | RTA22200004F.k.12.1.P.Seq | F           | M00055805:37  | CH15CON   |
| 247    | 555702  | RTA22200022F.j.10.1.P.Seq | F           | M00054949:53  | CH17COHLV |
| 248    | 549435  | RTA22200019F.p.14.1.P.Seq | F           | M00054561:56  | CH17COHLV |
| 249    | 643954  | RTA22200002F.d.19.1.P.Seq | F           | M00055451:711 | CH15CON   |
| 250    | 5984    | RTA22200026F.d.05.1.P.Seq | F           | M00055420:56  | CH17COHLV |
| 251    | 560526  | RTA22200022F.f.10.1.P.Seq | F           | M00054910:76  | CH17COHLV |
| 252    | 411113  | RTA22200023F.a.16.1.P.Seq | F           | M00055017:111 | CH17COHLV |
| 253    | 7607    | RTA22200004F.b.13.1.P.Seq | F           | M00055744:69  | CH15CON   |
| 254    | 559409  | RTA22200019F.o.07.1.P.Seq | F           | M00054551:73  | CH17COHLV |
| 255    | 650053  | RTA22200002F.p.11.1.P.Seq | F           | M00055560:62  | CH15CON   |
| 256    | 448511  | RTA22200009F.f.03.1.P.Seq | F           | M00042777:46  | CH16COP   |
| 257    | 642142  | RTA22200016F.o.20.1.P.Seq | F           | M00057277:510 | CH16COP   |
| 258    | 470462  | RTA22200006F.b.14.2.P.Seq | F           | M00056005:34  | CH15CON   |
| 259    | 431601  | RTA22200004F.d.07.1.P.Seq | F           | M00055763:56  | CH15CON   |
| 260    | 421431  | RTA22200001F.g.16.1.P.Seq | F           | M00042704:52  | CH15CON   |
| 261    | 284586  | RTA22200002F.d.17.1.P.Seq | F           | M00055451:67  | CH15CON   |
| 262    | 556198  | RTA22200022F.l.06.1.P.Seq | F           | M00054963:84  | CH17COHLV |
| 263    | 431601  | RTA22200004F.j.04.1.P.Seq | F           | M00055800:48  | CH15CON   |
| 264    | 449891  | RTA22200002F.n.21.1.P.Seq | F           | M00055548:64  | CH15CON   |
| 265    | 556561  | RTA22200022F.p.01.1.P.Seq | F           | M00054997:212 | CH17COHLV |
| 266    | 554188  | RTA22200022F.o.20.1.P.Seq | F           | M00054996:39  | CH17COHLV |
| 267    | 3247    | RTA22200006F.a.22.2.P.Seq | F           | M00056001:26  | CH15CON   |
| 268    | 546705  | RTA22200022F.k.20.1.P.Seq | F           | M00054959:311 | CH17COHLV |
| 269    | 560984  | RTA22200022F.p.02.1.P.Seq | F           | M00054997:83  | CH17COHLV |
| 270    | 455820  | RTA22200006F.g.03.2.P.Seq | F           | M00056045:81  | CH15CON   |

Table 1



Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 271    | 643129  | RTA22200006F.n.12.2.P.Seq | F           | M00056103:412 | CH15CON   |
| 272    | 454653  | RTA22200023F.o.20.1.P.Seq | F           | M00055128:210 | CH17COHLV |
| 273    | 456549  | RTA22200002F.k.01.1.P.Seq | F           | M00055522:32  | CH15CON   |
| 274    | 454806  | RTA22200004F.n.04.1.P.Seq | F           | M00055822:84  | CH15CON   |
| 275    | 724296  | RTA22200014F.o.10.2.P.Seq | F           | M00057025:18  | CH16COP   |
| 276    | 559280  | RTA22200015F.j.19.1.P.Seq | F           | M00057106:26  | CH16COP   |
| 277    | 171511  | RTA22200014F.c.05.2.P.Seq | F           | M00056939:22  | CH16COP   |
| 278    | 644242  | RTA22200002F.o.14.1.P.Seq | F           | M00055553:84  | CH15CON   |
| 279    | 734370  | RTA22200016F.j.07.1.P.Seq | F           | M00057232:46  | CH16COP   |
| 280    | 639459  | RTA22200002F.i.18.1.P.Seq | F           | M00055512:76  | CH15CON   |
| 281    | 641679  | RTA22200003F.d.20.1.P.Seq | F           | M00055613:52  | CH15CON   |
| 282    | 644611  | RTA22200002F.i.10.1.P.Seq | F           | M00055509:89  | CH15CON   |
| 283    | 550038  | RTA22200021F.i.16.3.P.Seq | F           | M00054802:72  | CH17COHLV |
| 284    | 452567  | RTA22200002F.j.12.1.P.Seq | F           | M00055519:36  | CH15CON   |
| 285    | 411113  | RTA22200024F.f.03.1.P.Seq | F           | M00055185:21  | CH17COHLV |
| 286    | 650749  | RTA22200002F.d.18.1.P.Seq | F           | M00055451:611 | CH15CON   |
| 287    | 558899  | RTA22200026F.d.12.1.P.Seq | F           | M00055421:44  | CH17COHLV |
| 288    | 452986  | RTA22200002F.a.13.1.P.Seq | F           | M00055426:22  | CH15CON   |
| 289    | 393197  | RTA22200015F.k.01.1.P.Seq | F           | M00057108:59  | CH16COP   |
| 290    | 499424  | RTA22200024F.e.10.1.P.Seq | F           | M00055179:42  | CH17COHLV |
| 291    | 21669   | RTA22200025F.m.07.2.P.Seq | F           | M00055384:13  | CH17COHLV |
| 292    | 640590  | RTA22200004F.h.21.1.P.Seq | F           | M00055794:711 | CH15CON   |
| 293    | 549936  | RTA22200024F.c.10.1.P.Seq | F           | M00055157:311 | CH17COHLV |
| 294    | 448770  | RTA22200016F.c.17.1.P.Seq | F           | M00057174:712 | CH16COP   |
| 295    | 559280  | RTA22200015F.h.14.1.P.Seq | F           | M00057093:69  | CH16COP   |
| 296    | 648934  | RTA22200003F.c.10.1.P.Seq | F           | M00055591:81  | CH15CON   |
| 297    | 452685  | RTA22200004F.p.06.1.P.Seq | F           | M00055838:412 | CH15CON   |
| 298    | 456549  | RTA22200002F.j.24.1.P.Seq | F           | M00055522:32  | CH15CON   |
| 299    | 446614  | RTA22200001F.d.24.1.P.Seq | F           | M00042563:52  | CH15CON   |
| 300    | 559280  | RTA22200024F.d.18.1.P.Seq | F           | M00055170:52  | CH17COHLV |
| 301    | 446673  | RTA22200015F.c.01.1.P.Seq | F           | M00057055:78  | CH16COP   |
| 302    | 562550  | RTA22200004F.n.17.1.P.Seq | F           | M00055826:64  | CH15CON   |
| 303    | 467288  | RTA22200002F.h.16.1.P.Seq | F           | M00055500:25  | CH15CON   |
| 304    | 463824  | RTA22200004F.n.10.1.P.Seq | F           | M00055823:43  | CH15CON   |
| 305    | 393197  | RTA22200015F.j.24.1.P.Seq | F           | M00057108:59  | CH16COP   |
| 306    | 407077  | RTA22200015F.j.22.1.P.Seq | F           | M00057108:64  | CH16COP   |
| 307    | 499424  | RTA22200018F.h.13.1.P.Seq | F           | M00043317:81  | CH17COHLV |
| 308    | 554500  | RTA22200021F.o.20.2.P.Seq | F           | M00054857:512 | CH17COHLV |
| 309    | 730143  | RTA22200015F.k.14.1.P.Seq | F           | M00057112:29  | CH16COP   |
| 310    | 595506  | RTA22200015F.c.21.1.P.Seq | F           | M00057061:44  | CH16COP   |
| 311    | 2334    | RTA22200016F.k.13.1.P.Seq | F           | M00057242:85  | CH16COP   |
| 312    | 647444  | RTA22200002F.k.22.1.P.Seq | F           | M00055527:711 | CH15CON   |
| 313    | 380291  | RTA22200008F.a.03.1.P.Seq | F           | M00056292:55  | CH15CON   |
| 314    | 644849  | RTA22200016F.a.22.1.P.Seq | F           | M00057162:37  | CH16COP   |
| 315    | 449457  | RTA22200018F.g.23.1.P.Seq | F           | M00043314:84  | CH17COHLV |
| 316    | 446673  | RTA22200015F.b.24.1.P.Seq | F           | M00057055:78  | CH16COP   |
| 317    | 549069  | RTA22200020F.e.05.1.P.Seq | F           | M00054596:27  | CH17COHLV |
| 318    | 728884  | RTA22200015F.d.02.1.P.Seq | F           | M00057063:38  | CH16COP   |
| 319    | 415058  | RTA22200020F.f.03.1.P.Seq | F           | M00054605:41  | CH17COHLV |
| 320    | 553955  | RTA22200020F.e.20.1.P.Seq | F           | M00054602:42  | CH17COHLV |
| 321    | 455820  | RTA22200018F.i.16.1.P.Seq | F           | M00043323:44  | CH17COHLV |
| 322    | 549617  | RTA22200020F.f.20.1.P.Seq | F           | M00054611:62  | CH17COHLV |
| 323    | 449831  | RTA22200018F.d.22.1.P.Seq | F           | M00042518:16  | CH17COHLV |
| 324    | 451580  | RTA22200018F.b.09.1.P.Seq | F           | M00042444:75  | CH17COHLV |

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 326    | 562292  | RTA22200025F.j.10.1.P.Seq | F           | M00055368:26  | CH17COHLV |
| 327    | 5830    | RTA22200011F.d.11.1.P.Seq | F           | M00056552:110 | CH16COP   |
| 328    | 8953    | RTA22200248F.p.09.1.P.Seq | F           | M00027608:87  | CH04MAL   |
| 329    | 8012    | RTA22200233F.i.02.1.P.Seq | F           | M00008089:59  | CH03MAH   |
| 330    | 185718  | RTA22200250F.f.15.1.P.Seq | F           | M00027829:42  | CH04MAL   |
| 331    | 729851  | RTA22200011F.b.18.1.P.Seq | F           | M00056537:85  | CH16COP   |
| 332    | 185597  | RTA22200249F.a.20.1.P.Seq | F           | M00027616:712 | CH04MAL   |
| 333    | 9887    | RTA22200234F.h.14.1.P.Seq | F           | M00022253:53  | CH03MAH   |
| 334    | 725825  | RTA22200011F.c.16.1.P.Seq | F           | M00056547:34  | CH16COP   |
| 335    | 6545    | RTA22200249F.e.12.1.P.Seq | F           | M00027639:511 | CH04MAL   |
| 336    | 21205   | RTA22200249F.f.24.1.P.Seq | F           | M00027660:53  | CH04MAL   |
| 337    | 8867    | RTA22200234F.j.23.1.P.Seq | F           | M00022280:711 | CH03MAH   |
| 338    | 729295  | RTA22200010F.m.09.1.P.Seq | F           | M00056499:65  | CH16COP   |
| 339    | 730430  | RTA22200010F.h.08.1.P.Seq | F           | M00056416:212 | CH16COP   |
| 340    | 7072    | RTA22200233F.h.20.1.P.Seq | F           | M00008085:39  | CH03MAH   |
| 341    | 730533  | RTA22200010F.n.17.1.P.Seq | F           | M00056506:712 | CH16COP   |
| 342    | 9121    | RTA22200224F.g.11.1.P.Seq | F           | M00005312:410 | CH02COH   |
| 343    | 11131   | RTA22200224F.c.08.1.P.Seq | F           | M00004852:14  | CH02COH   |
| 344    | 640116  | RTA22200010F.n.01.1.P.Seq | F           | M00056503:711 | CH16COP   |
| 345    | 730282  | RTA22200010F.k.18.1.P.Seq | F           | M00056483:66  | CH16COP   |
| 346    | 550571  | RTA22200019F.h.11.1.P.Seq | F           | M00054502:52  | CH17COHLV |
| 347    | 1183    | RTA22200248F.c.22.1.P.Seq | F           | M00027527:74  | CH04MAL   |
| 348    | 449437  | RTA22200019F.g.09.1.P.Seq | F           | M00054494:51  | CH17COHLV |
| 349    | 8966    | RTA22200242F.d.21.1.P.Seq | F           | M00026994:17  | CH04MAL   |
| 350    | 6134    | RTA22200006F.p.04.2.P.Seq | F           | M00056125:49  | CH15CON   |
| 351    | 95700   | RTA22200241F.f.09.1.P.Seq | F           | M00026896:510 | CH04MAL   |
| 352    | 7066    | RTA22200229F.a.23.1.P.Seq | F           | M00006928:14  | CH02COH   |
| 353    | 648310  | RTA22200007F.a.23.1.P.Seq | F           | M00056143:59  | CH15CON   |
| 354    | 730059  | RTA22200013F.k.11.1.P.Seq | F           | M00056874:45  | CH16COP   |
| 355    | 736014  | RTA22200012F.f.11.1.P.Seq | F           | M00056708:411 | CH16COP   |
| 356    | 646577  | RTA22200012F.d.07.1.P.Seq | F           | M00056693:38  | CH16COP   |
| 357    | 732254  | RTA22200014F.g.09.1.P.Seq | F           | M00056967:57  | CH16COP   |
| 358    | 7037    | RTA22200229F.b.01.1.P.Seq | F           | M00006928:41  | CH02COH   |
| 359    | 7037    | RTA22200229F.a.24.1.P.Seq | F           | M00006928:41  | CH02COH   |
| 360    | 6937    | RTA22200232F.b.06.1.P.Seq | F           | M00021864:57  | CH03MAH   |
| 361    | 7572    | RTA22200228F.k.06.2.P.Seq | F           | M00006867:612 | CH02COH   |
| 362    | 388085  | RTA22200005F.c.21.1.P.Seq | F           | M00055868:43  | CH15CON   |
| 363    | 2676    | RTA22200227F.p.19.1.P.Seq | F           | M00006761:35  | CH02COH   |
| 364    | 639240  | RTA22200007F.k.18.1.P.Seq | F           | M00056238:57  | CH15CON   |
| 365    | 650472  | RTA22200012F.e.19.1.P.Seq | F           | M00056705:57  | CH16COP   |
| 366    | 727789  | RTA22200012F.g.19.1.P.Seq | F           | M00056715:31  | CH16COP   |
| 367    | 2495    | RTA22200238F.e.03.1.P.Seq | F           | M00022895:211 | CH03MAH   |
| 368    | 732254  | RTA22200014F.g.09.2.P.Seq | F           | M00056967:57  | CH16COP   |
| 369    | 5268    | RTA22200225F.m.13.1.P.Seq | F           | M00005517:64  | CH02COH   |
| 370    | 11881   | RTA22200238F.e.09.1.P.Seq | F           | M00022897:83  | CH03MAH   |
| 371    | 448677  | RTA22200009F.b.05.2.P.Seq | F           | M00042440:55  | CH16COP   |
| 372    | 1876    | RTA22200235F.i.14.2.P.Seq | F           | M00022496:64  | CH03MAH   |
| 373    | 3441    | RTA22200233F.e.23.1.P.Seq | F           | M00008065:62  | CH03MAH   |
| 374    | 726134  | RTA22200011F.l.05.1.P.Seq | F           | M00056618:611 | CH16COP   |
| 375    | 9048    | RTA22200222F.g.12.1.P.Seq | F           | M00003804:19  | CH01COH   |
| 376    | 26489   | RTA22200242F.k.07.1.P.Seq | F           | M00027039:66  | CH04MAL   |
| 377    | 644205  | RTA22200007F.c.24.1.P.Seq | F           | M00056162:68  | CH15CON   |
| 378    | 468689  | RTA22200006F.f.04.2.P.Seq | F           | M00056036:26  | CH15CON   |



Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 379    | 638971  | RTA22200012F.k.19.1.P.Seq | F           | M00056746:12  | CH16COP   |
| 380    | 10274   | RTA22200241F.l.17.1.P.Seq | F           | M00026936:312 | CH04MAL   |
| 381    | 6725    | RTA22200232F.f.22.1.P.Seq | F           | M00022013:85  | CH03MAH   |
| 382    | 2488    | RTA22200012F.l.21.1.P.Seq | F           | M00056754:49  | CH16COP   |
| 383    | 8366    | RTA22200244F.c.08.1.P.Seq | F           | M00027173:48  | CH04MAL   |
| 384    | 502683  | RTA22200007F.a.09.1.P.Seq | F           | M00056139:71  | CH15CON   |
| 385    | 450914  | RTA22200012F.k.22.1.P.Seq | F           | M00056747:45  | CH16COP   |
| 386    | 21205   | RTA22200243F.k.21.1.P.Seq | F           | M00027140:311 | CH04MAL   |
| 387    | 644205  | RTA22200007F.d.01.1.P.Seq | F           | M00056162:68  | CH15CON   |
| 388    | 5268    | RTA22200225F.m.05.1.P.Seq | F           | M00005513:69  | CH02COH   |
| 389    | 8012    | RTA22200232F.n.17.1.P.Seq | F           | M00022148:16  | CH03MAH   |
| 390    | 11270   | RTA22200227F.m.18.1.P.Seq | F           | M00006734:18  | CH02COH   |
| 391    | 10924   | RTA22200237F.h.04.1.P.Seq | F           | M00022738:46  | CH03MAH   |
| 392    | 11619   | RTA22200241F.g.14.1.P.Seq | F           | M00026902:74  | CH04MAL   |
| 393    | 3650    | RTA22200236F.e.11.1.P.Seq | F           | M00022617:32  | CH03MAH   |
| 394    | 1655    | RTA22200222F.e.14.1.P.Seq | F           | M00001637:49  | CH01COH   |
| 395    | 3275    | RTA22200238F.b.21.1.P.Seq | F           | M00022876:25  | CH03MAH   |
| 396    | 3355    | RTA22200238F.c.05.1.P.Seq | F           | M00022880:79  | CH03MAH   |
| 397    | 2078    | RTA22200235F.g.18.1.P.Seq | F           | M00022473:26  | CH03MAH   |
| 398    | 4809    | RTA22200222F.g.09.1.P.Seq | F           | M00003794:47  | CH01COH   |
| 399    | 6402    | RTA22200236F.l.15.1.P.Seq | F           | M00022660:24  | CH03MAH   |
| 400    | 555244  | RTA22200023F.e.03.1.P.Seq | F           | M00055042:21  | CH17COHLV |
| 401    | 548965  | RTA22200012F.g.16.1.P.Seq | F           | M00056715:410 | CH16COP   |
| 402    | 4747    | RTA22200227F.m.12.1.P.Seq | F           | M00006731:38  | CH02COH   |
| 403    | 40208   | RTA22200241F.n.21.1.P.Seq | F           | M00026950:81  | CH04MAL   |
| 404    | 14596   | RTA22200241F.d.18.1.P.Seq | F           | M00026879:22  | CH04MAL   |
| 405    | 7110    | RTA22200232F.n.01.1.P.Seq | F           | M00022143:41  | CH03MAH   |
| 406    | 7110    | RTA22200232F.m.24.1.P.Seq | F           | M00022143:41  | CH03MAH   |
| 407    | 6592    | RTA22200238F.p.20.1.P.Seq | F           | M00023029:56  | CH03MAH   |
| 408    | 6455    | RTA22200232F.o.06.1.P.Seq | F           | M00022151:75  | CH03MAH   |
| 409    | 2738    | RTA22200232F.g.16.1.P.Seq | F           | M00022050:44  | CH03MAH   |
| 410    | 696     | RTA22200232F.m.02.1.P.Seq | F           | M00022132:64  | CH03MAH   |
| 411    | 379186  | RTA22200012F.c.05.1.P.Seq | F           | M00056682:610 | CH16COP   |
| 412    | 1588    | RTA22200232F.o.03.1.P.Seq | F           | M00022151:411 | CH03MAH   |
| 413    | 7007    | RTA22200225F.e.05.1.P.Seq | F           | M00005454:33  | CH02COH   |
| 414    | 9025    | RTA22200222F.k.23.1.P.Seq | F           | M00004080:15  | CH01COH   |
| 415    | 650749  | RTA22200007F.i.16.2.P.Seq | F           | M00056220:49  | CH15CON   |
| 416    | 553158  | RTA22200005F.e.13.1.P.Seq | F           | M00055879:511 | CH15CON   |
| 417    | 641703  | RTA22200003F.e.18.1.P.Seq | F           | M00055628:18  | CH15CON   |
| 418    | 833     | RTA22200006F.j.24.2.P.Seq | F           | M00056077:512 | CH15CON   |
| 419    | 649259  | RTA22200006F.o.01.2.P.Seq | F           | M00056108:212 | CH15CON   |
| 420    | 451179  | RTA22200011F.l.14.1.P.Seq | F           | M00056596:88  | CH16COP   |
| 421    | 9505    | RTA22200231F.b.20.1.P.Seq | F           | M00007935:15  | CH03MAH   |
| 422    | 736728  | RTA22200015F.n.19.1.P.Seq | F           | M00057134:31  | CH16COP   |
| 423    | 380412  | RTA22200001F.p.23.1.P.Seq | F           | M00054918:43  | CH15CON   |
| 424    | 642425  | RTA22200011F.k.12.1.P.Seq | F           | M00056613:15  | CH16COP   |
| 425    | 405073  | RTA22200007F.o.05.1.P.Seq | F           | M00056273:11  | CH15CON   |
| 426    | 174250  | RTA22200008F.h.09.1.P.Seq | F           | M00056475:61  | CH15CON   |
| 427    | 726281  | RTA22200017F.d.08.1.P.Seq | F           | M00057324:412 | CH16COP   |
| 428    | 639029  | RTA22200007F.k.05.2.P.Seq | F           | M00056233:63  | CH15CON   |
| 429    | 452245  | RTA22200022F.l.05.1.P.Seq | F           | M00054963:811 | CH17COHLV |
| 430    | 510254  | RTA22200005F.p.22.1.P.Seq | F           | M00055992:511 | CH15CON   |
| 431    | 642425  | RTA22200007F.g.19.1.P.Seq | F           | M00056204:14  | CH15CON   |
| 432    | 51939   | RTA22200005F.i.22.1.P.Seq | F           | M00055912:510 | CH15CON   |

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
|--------|---------|---------------------------|-------------|---------------|-----------|
| 433    | 7379    | RTA22200228F.f.21.1.P.Seq | F           | M00006821:21  | CH02COH   |
| 434    | 546632  | RTA22200013F.h.16.1.P.Seq | F           | M00056858:112 | CH16COP   |
| 435    | 734827  | RTA22200011F.m.09.1.P.Seq | F           | M00056631:38  | CH16COP   |
| 436    | 2554    | RTA22200231F.g.06.1.P.Seq | F           | M00007961:65  | CH03MAH   |
| 437    | 643285  | RTA22200012F.a.16.1.P.Seq | F           | M00056665:111 | CH16COP   |
| 438    | 448770  | RTA22200001F.o.07.1.P.Seq | F           | M00054793:27  | CH15CON   |
| 439    | 375380  | RTA22200023F.e.20.1.P.Seq | F           | M00055046:37  | CH17COHLV |
| 440    | 726134  | RTA22200011F.l.10.1.P.Seq | F           | M00056620:512 | CH16COP   |
| 441    | 422687  | RTA22200015F.p.03.1.P.Seq | F           | M00057143:55  | CH16COP   |
| 442    | 448436  | RTA22200012F.n.02.1.P.Seq | F           | M00056763:45  | CH16COP   |
| 443    | 644893  | RTA22200012F.l.24.1.P.Seq | F           | M00056754:15  | CH16COP   |
| 444    | 559104  | RTA22200012F.n.21.1.P.Seq | F           | M00056771:312 | CH16COP   |
| 445    | 551172  | RTA22200016F.g.09.1.P.Seq | F           | M00057211:16  | CH16COP   |
| 446    | 724296  | RTA22200012F.f.22.1.P.Seq | F           | M00056710:67  | CH16COP   |
| 447    | 735936  | RTA22200009F.p.13.1.P.Seq | F           | M00056346:312 | CH16COP   |
| 448    | 556326  | RTA22200023F.k.20.1.P.Seq | F           | M00055085:110 | CH17COHLV |
| 449    | 729699  | RTA22200011F.o.04.1.P.Seq | F           | M00056646:32  | CH16COP   |
| 450    | 550694  | RTA22200022F.a.05.1.P.Seq | F           | M00054867:27  | CH17COHLV |
| 451    | 734738  | RTA22200017F.e.11.1.P.Seq | F           | M00057337:72  | CH16COP   |
| 452    | 404502  | RTA22200007F.p.08.1.P.Seq | F           | M00056286:58  | CH15CON   |
| 453    | 554151  | RTA22200015F.o.18.1.P.Seq | F           | M00057142:17  | CH16COP   |
| 454    | 649852  | RTA22200001F.n.24.1.P.Seq | F           | M00042914:210 | CH15CON   |
| 455    | 734063  | RTA22200011F.m.16.1.P.Seq | F           | M00056633:27  | CH16COP   |
| 456    | 7279    | RTA22200230F.b.22.1.P.Seq | F           | M00007108:41  | CH02COH   |
| 457    | 2676    | RTA22200230F.l.05.1.P.Seq | F           | M00007204:41  | CH02COH   |
| 458    | 649148  | RTA22200006F.k.08.2.P.Seq | F           | M00056079:311 | CH15CON   |
| 459    | 1953    | RTA22200226F.p.21.1.P.Seq | F           | M00006576:24  | CH02COH   |
| 460    | 650108  | RTA22200006F.d.04.2.P.Seq | F           | M00056018:75  | CH15CON   |
| 461    | 515350  | RTA22200005F.g.04.1.P.Seq | F           | M00055886:79  | CH15CON   |
| 462    | 402494  | RTA22200013F.a.15.1.P.Seq | F           | M00056796:85  | CH16COP   |
| 463    | 649148  | RTA22200013F.d.09.1.P.Seq | F           | M00056821:39  | CH16COP   |
| 464    | 833     | RTA22200006F.k.01.2.P.Seq | F           | M00056077:512 | CH15CON   |
| 465    | 139730  | RTA22200242F.g.02.1.P.Seq | F           | M00027014:74  | CH04MAL   |
| 466    | 453079  | RTA22200009F.k.11.2.P.Seq | F           | M00042835:42  | CH16COP   |
| 467    | 546705  | RTA22200003F.p.11.1.P.Seq | F           | M00055729:16  | CH15CON   |
| 468    | 644903  | RTA22200003F.f.09.1.P.Seq | F           | M00055635:74  | CH15CON   |
| 469    | 732254  | RTA22200013F.g.01.1.P.Seq | F           | M00056842:612 | CH16COP   |
| 470    | 561180  | RTA22200003F.e.19.1.P.Seq | F           | M00055630:59  | CH15CON   |
| 471    | 732254  | RTA22200013F.f.24.1.P.Seq | F           | M00056842:612 | CH16COP   |
| 472    | 449204  | RTA22200009F.k.07.2.P.Seq | F           | M00042834:26  | CH16COP   |
| 473    | 185651  | RTA22200242F.f.20.1.P.Seq | F           | M00027013:510 | CH04MAL   |
| 474    | 639029  | RTA22200013F.l.04.1.P.Seq | F           | M00056880:24  | CH16COP   |
| 475    | 452986  | RTA22200007F.f.11.1.P.Seq | F           | M00056192:54  | CH15CON   |
| 476    | 729779  | RTA22200011F.i.05.1.P.Seq | F           | M00056594:36  | CH16COP   |
| 477    | 646248  | RTA22200005F.o.19.1.P.Seq | F           | M00055979:29  | CH15CON   |
| 478    | 650448  | RTA22200012F.a.11.1.P.Seq | F           | M00056664:27  | CH16COP   |
| 479    | 642049  | RTA22200003F.o.23.1.P.Seq | F           | M00055726:28  | CH15CON   |
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| 481    | 446139  | RTA22200007F.l.09.2.P.Seq | F           | M00056244:37  | CH15CON   |
| 482    | 2783    | RTA22200008F.f.20.1.P.Seq | F           | M00056456:62  | CH15CON   |
| 483    | 642906  | RTA22200012F.n.20.1.P.Seq | F           | M00056771:612 | CH16COP   |
| 484    | 8332    | RTA22200236F.j.08.1.P.Seq | F           | M00022651:24  | CH03MAH   |
| 485    | 453470  | RTA22200007F.j.08.2.P.Seq | F           | M00056224:58  | CH15CON   |
| 486    | 552277  | RTA22200020F.p.05.1.P.Seq | F           | M00054706:39  | CH17COHLV |

Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 488    | 547916  | RTA22200008F.f.11.1.P.Seq | F           | M00056448:39  | CH15CON   |
| 489    | 649722  | RTA22200006F.m.10.2.P.Seq | F           | M00056094:87  | CH15CON   |
| 490    | 612572  | RTA22200007F.l.08.2.P.Seq | F           | M00056244:28  | CH15CON   |
| 491    | 385980  | RTA22200012F.p.15.1.P.Seq | F           | M00056784:25  | CH16COP   |
| 492    | 141185  | RTA22200007F.i.02.2.P.Seq | F           | M00056215:53  | CH15CON   |
| 493    | 463824  | RTA22200006F.p.16.2.P.Seq | F           | M00056133:49  | CH15CON   |
| 494    | 446139  | RTA22200007F.g.14.1.P.Seq | F           | M00056201:88  | CH15CON   |
| 495    | 725994  | RTA22200011F.h.16.1.P.Seq | F           | M00056591:53  | CH16COP   |
| 496    | 736679  | RTA22200011F.o.02.1.P.Seq | F           | M00056645:66  | CH16COP   |
| 497    | 551718  | RTA22200013F.a.18.1.P.Seq | F           | M00056799:511 | CH16COP   |
| 498    | 640525  | RTA22200003F.m.23.1.P.Seq | F           | M00055707:38  | CH15CON   |
| 499    | 645210  | RTA22200007F.m.03.1.P.Seq | F           | M00056251:16  | CH15CON   |
| 500    | 6567    | RTA22200235F.p.09.2.P.Seq | F           | M00022569:17  | CH03MAH   |
| 501    | 646146  | RTA22200005F.p.10.1.P.Seq | F           | M00055985:41  | CH15CON   |
| 502    | 4934    | RTA22200227F.a.18.1.P.Seq | F           | M00006587:18  | CH02COH   |
| 503    | 450791  | RTA22200011F.l.04.1.P.Seq | F           | M00056618:66  | CH16COP   |
| 504    | 227936  | RTA22200009F.p.09.1.P.Seq | F           | M00042879:69  | CH16COP   |
| 505    | 9436    | RTA22200020F.m.12.1.P.Seq | F           | M00054679:412 | CH17COHLV |
| 506    | 2557    | RTA22200226F.b.14.1.P.Seq | F           | M00005610:211 | CH02COH   |
| 507    | 11356   | RTA22200228F.g.20.1.P.Seq | F           | M00006831:85  | CH02COH   |
| 508    | 7571    | RTA22200226F.l.17.1.P.Seq | F           | M00005769:13  | CH02COH   |
| 509    | 558116  | RTA22200007F.g.09.1.P.Seq | F           | M00056199:19  | CH15CON   |
| 510    | 216574  | RTA22200012F.o.12.1.P.Seq | F           | M00056775:17  | CH16COP   |
| 511    | 455145  | RTA22200005F.l.12.1.P.Seq | F           | M00055936:57  | CH15CON   |
| 512    | 649148  | RTA22200007F.k.01.2.P.Seq | F           | M00056231:79  | CH15CON   |
| 513    | 648996  | RTA22200007F.m.08.1.P.Seq | F           | M00056253:612 | CH15CON   |
| 514    | 304253  | RTA22200013F.g.11.1.P.Seq | F           | M00056844:110 | CH16COP   |
| 515    | 649717  | RTA22200008F.g.10.1.P.Seq | F           | M00056466:13  | CH15CON   |
| 516    | 5838    | RTA22200226F.h.10.1.P.Seq | F           | M00005685:412 | CH02COH   |
| 517    | 454050  | RTA22200005F.m.23.1.P.Seq | F           | M00055956:52  | CH15CON   |
| 518    | 557903  | RTA22200011F.j.17.1.P.Seq | F           | M00056608:54  | CH16COP   |
| 519    | 1724    | RTA22200240F.k.16.1.P.Seq | F           | M00023518:14  | CH04MAL   |
| 520    | 734803  | RTA22200011F.n.23.1.P.Seq | F           | M00056645:211 | CH16COP   |
| 521    | 557948  | RTA22200023F.b.07.1.P.Seq | F           | M00055022:84  | CH17COHLV |
| 522    | 5838    | RTA22200229F.i.24.1.P.Seq | F           | M00006997:13  | CH02COH   |
| 523    | 2334    | RTA22200017F.c.04.1.P.Seq | F           | M00057312:511 | CH16COP   |
| 524    | 450953  | RTA22200022F.h.12.1.P.Seq | F           | M00054937:210 | CH17COHLV |
| 525    | 4840    | RTA22200236F.i.16.1.P.Seq | F           | M00022645:15  | CH03MAH   |
| 526    | 728421  | RTA22200011F.m.20.1.P.Seq | F           | M00056635:111 | CH16COP   |
| 527    | 4747    | RTA22200228F.f.23.1.P.Seq | F           | M00006822:19  | CH02COH   |
| 528    | 648934  | RTA22200005F.m.08.1.P.Seq | F           | M00055945:510 | CH15CON   |
| 529    | 1787    | RTA22200226F.d.09.1.P.Seq | F           | M00005627:210 | CH02COH   |
| 530    | 558098  | RTA22200006F.j.17.2.P.Seq | F           | M00056074:710 | CH15CON   |
| 531    | 1655    | RTA22200222F.k.16.1.P.Seq | F           | M00004066:42  | CH01COH   |
| 532    | 158601  | RTA22200242F.h.06.1.P.Seq | F           | M00027021:811 | CH04MAL   |
| 533    | 185486  | RTA22200240F.g.17.1.P.Seq | F           | M00023393:512 | CH04MAL   |
| 534    | 7110    | RTA22200232F.k.19.1.P.Seq | F           | M00022106:44  | CH03MAH   |
| 535    | 2543    | RTA22200230F.k.02.1.P.Seq | F           | M00007192:56  | CH02COH   |
| 536    | 115762  | RTA22200012F.f.06.1.P.Seq | F           | M00056707:45  | CH16COP   |
| 537    | 696     | RTA22200243F.p.04.1.P.Seq | F           | M00027163:411 | CH04MAL   |
| 538    | 1948    | RTA22200232F.l.23.1.P.Seq | F           | M00022132:410 | CH03MAH   |
| 539    | 696     | RTA22200241F.o.01.1.P.Seq | F           | M00026951:711 | CH04MAL   |
| 540    | 696     | RTA22200241F.n.24.1.P.Seq | F           | M00026951:711 | CH04MAL   |

Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
|--------|---------|---------------------------|-------------|---------------|-----------|
| 541    | 380477  | RTA22200004F.h.14.1.P.Seq | F           | M00055791:63  | CH15CON   |
| 542    | 638799  | RTA22200002F.b.05.1.P.Seq | F           | M00055428:12  | CH15CON   |
| 543    | 551982  | RTA22200019F.m.15.1.P.Seq | F           | M00054542:18  | CH17COHLV |
| 544    | 551982  | RTA22200021F.k.10.3.P.Seq | F           | M00054815:51  | CH17COHLV |
| 545    | 521840  | RTA22200021F.c.20.2.P.Seq | F           | M00054739:56  | CH17COHLV |
| 546    | 561180  | RTA22200026F.d.16.1.P.Seq | F           | M00055423:110 | CH17COHLV |
| 547    | 556245  | RTA22200020F.i.02.1.P.Seq | F           | M00054636:12  | CH17COHLV |
| 548    | 449792  | RTA22200001F.a.07.1.P.Seq | F           | M00042345:612 | CH15CON   |
| 549    | 549722  | RTA22200020F.d.22.1.P.Seq | F           | M00054595:22  | CH17COHLV |
| 550    | 612572  | RTA22200024F.i.24.1.P.Seq | F           | M00055216:13  | CH17COHLV |
| 551    | 551235  | RTA22200021F.l.12.3.P.Seq | F           | M00054826:25  | CH17COHLV |
| 552    | 449701  | RTA22200009F.h.04.1.P.Seq | F           | M00042802:711 | CH16COP   |
| 553    | 375380  | RTA22200026F.e.18.1.P.Seq | F           | M00055472:83  | CH17COHLV |
| 554    | 56940   | RTA22200021F.l.14.3.P.Seq | F           | M00054826:55  | CH17COHLV |
| 555    | 549160  | RTA22200021F.c.19.2.P.Seq | F           | M00054739:43  | CH17COHLV |
| 556    | 554151  | RTA22200021F.l.13.3.P.Seq | F           | M00054826:310 | CH17COHLV |
| 557    | 727331  | RTA22200015F.b.19.1.P.Seq | F           | M00057052:211 | CH16COP   |
| 558    | 551502  | RTA22200019F.o.20.1.P.Seq | F           | M00054555:712 | CH17COHLV |
| 559    | 612572  | RTA22200024F.j.01.1.P.Seq | F           | M00055216:13  | CH17COHLV |
| 560    | 701221  | RTA22200002F.o.23.1.P.Seq | F           | M00055556:89  | CH15CON   |
| 561    | 378041  | RTA22200016F.b.17.1.P.Seq | F           | M00057167:712 | CH16COP   |
| 562    | 503491  | RTA22200004F.l.16.1.P.Seq | F           | M00055812:51  | CH15CON   |
| 563    | 452833  | RTA22200018F.e.01.1.P.Seq | F           | M00042520:69  | CH17COHLV |
| 564    | 640974  | RTA22200002F.i.20.1.P.Seq | F           | M00055512:68  | CH15CON   |
| 565    | 735326  | RTA22200013F.n.08.1.P.Seq | F           | M00056898:44  | CH16COP   |
| 566    | 555944  | RTA22200021F.i.03.3.P.Seq | F           | M00054780:78  | CH17COHLV |
| 567    | 447532  | RTA22200001F.d.07.1.P.Seq | F           | M00042556:44  | CH15CON   |
| 568    | 455598  | RTA22200002F.k.15.1.P.Seq | F           | M00055526:69  | CH15CON   |
| 569    | 555734  | RTA22200022F.b.08.1.P.Seq | F           | M00054875:34  | CH17COHLV |
| 570    | 446663  | RTA22200001F.a.11.1.P.Seq | F           | M00042523:58  | CH15CON   |
| 571    | 449862  | RTA22200024F.i.07.1.P.Seq | F           | M00055207:14  | CH17COHLV |
| 572    | 549591  | RTA22200023F.o.03.1.P.Seq | F           | M00055117:33  | CH17COHLV |
| 573    | 553877  | RTA22200021F.c.23.2.P.Seq | F           | M00054740:88  | CH17COHLV |
| 574    | 553501  | RTA22200021F.a.01.2.P.Seq | F           | M00054720:412 | CH17COHLV |
| 575    | 1905    | RTA22200020F.p.14.1.P.Seq | F           | M00054713:412 | CH17COHLV |
| 576    | 446599  | RTA22200001F.h.20.1.P.Seq | F           | M00042720:46  | CH15CON   |
| 577    | 559409  | RTA22200024F.d.17.1.P.Seq | F           | M00055170:61  | CH17COHLV |
| 578    | 551982  | RTA22200026F.g.14.1.P.Seq | F           | M00055485:39  | CH17COHLV |
| 579    | 559057  | RTA22200024F.d.23.1.P.Seq | F           | M00055172:44  | CH17COHLV |
| 580    | 446760  | RTA22200001F.b.09.1.P.Seq | F           | M00042536:61  | CH15CON   |
| 581    | 551502  | RTA22200020F.o.06.1.P.Seq | F           | M00054694:74  | CH17COHLV |
| 582    | 446531  | RTA22200025F.o.04.2.P.Seq | F           | M00055395:32  | CH17COHLV |
| 583    | 506744  | RTA22200021F.h.07.3.P.Seq | F           | M00054772:36  | CH17COHLV |
| 584    | 401849  | RTA22200002F.n.05.1.P.Seq | F           | M00055544:22  | CH15CON   |
| 585    | 453848  | RTA22200009F.n.04.1.P.Seq | F           | M00042853:14  | CH16COP   |
| 586    | 456764  | RTA22200004F.c.15.1.P.Seq | F           | M00055755:42  | CH15CON   |
| 587    | 446371  | RTA22200003F.c.17.1.P.Seq | F           | M00055594:11  | CH15CON   |
| 588    | 406413  | RTA22200021F.c.09.2.P.Seq | F           | M00054734:810 | CH17COHLV |
| 589    | 555103  | RTA22200024F.a.21.1.P.Seq | F           | M00055148:411 | CH17COHLV |
| 590    | 735292  | RTA22200015F.c.13.1.P.Seq | F           | M00057059:89  | CH16COP   |
| 591    | 558534  | RTA22200023F.o.13.1.P.Seq | F           | M00055125:61  | CH17COHLV |
| 592    | 727181  | RTA22200016F.k.12.1.P.Seq | F           | M00057242:29  | CH16COP   |
| 593    | 551117  | RTA22200021F.f.14.3.P.Seq | F           | M00054760:112 | CH17COHLV |
| 594    | 464040  | RTA22200024F.g.21.1.P.Seq | F           | M00055198:77  | CH17COHLV |

Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 595    | 446371  | RTA22200001F.h.03.1.P.Seq | F           | M00042712:210 | CH15CON   |
| 596    | 728408  | RTA22200014F.p.13.3.P.Seq | F           | M00057033:69  | CH16COP   |
| 597    | 649259  | RTA22200006F.n.24.2.P.Seq | F           | M00056108:212 | CH15CON   |
| 598    | 15414   | RTA22200023F.n.18.1.P.Seq | F           | M00055113:111 | CH17COHLV |
| 599    | 639240  | RTA22200007F.k.18.2.P.Seq | F           | M00056238:57  | CH15CON   |
| 600    | 549722  | RTA22200020F.a.09.1.P.Seq | F           | M00054568:711 | CH17COHLV |
| 601    | 561499  | RTA22200021F.b.16.2.P.Seq | F           | M00054728:210 | CH17COHLV |
| 602    | 639029  | RTA22200002F.k.07.1.P.Seq | F           | M00055523:33  | CH15CON   |
| 603    | 449512  | RTA22200009F.p.02.1.P.Seq | F           | M00042875:54  | CH16COP   |
| 604    | 446987  | RTA22200001F.b.20.1.P.Seq | F           | M00042540:86  | CH15CON   |
| 605    | 466302  | RTA22200004F.m.18.1.P.Seq | F           | M00055820:55  | CH15CON   |
| 606    | 553802  | RTA22200022F.f.04.1.P.Seq | F           | M00054908:67  | CH17COHLV |
| 607    | 639662  | RTA22200004F.h.15.1.P.Seq | F           | M00055792:79  | CH15CON   |
| 608    | 551527  | RTA22200014F.k.03.2.P.Seq | F           | M00056998:58  | CH16COP   |
| 609    | 730389  | RTA22200016F.b.02.1.P.Seq | F           | M00057162:410 | CH16COP   |
| 610    | 640974  | RTA22200002F.n.03.1.P.Seq | F           | M00055543:78  | CH15CON   |
| 611    | 417155  | RTA22200002F.o.01.1.P.Seq | F           | M00055548:512 | CH15CON   |
| 612    | 417155  | RTA22200002F.n.24.1.P.Seq | F           | M00055548:512 | CH15CON   |
| 613    | 451784  | RTA22200008F.d.18.1.P.Seq | F           | M00056330:43  | CH15CON   |
| 614    | 649152  | RTA22200002F.f.04.1.P.Seq | F           | M00055464:65  | CH15CON   |
| 615    | 450867  | RTA22200003F.d.19.1.P.Seq | F           | M00055613:410 | CH15CON   |
| 616    | 143436  | RTA22200003F.d.04.1.P.Seq | F           | M00055602:57  | CH15CON   |
| 617    | 549395  | RTA22200004F.o.05.1.P.Seq | F           | M00055827:55  | CH15CON   |
| 618    | 639273  | RTA22200002F.h.02.1.P.Seq | F           | M00055496:57  | CH15CON   |
| 619    | 506744  | RTA22200021F.m.24.2.P.Seq | F           | M00054841:27  | CH17COHLV |
| 620    | 736595  | RTA22200014F.i.22.2.P.Seq | F           | M00056990:29  | CH16COP   |
| 621    | 230995  | RTA22200016F.i.10.1.P.Seq | F           | M00057226:35  | CH16COP   |
| 622    | 451784  | RTA22200019F.p.21.1.P.Seq | F           | M00054563:39  | CH17COHLV |
| 623    | 226324  | RTA22200020F.n.04.1.P.Seq | F           | M00054681:22  | CH17COHLV |
| 624    | 449617  | RTA22200009F.m.12.1.P.Seq | F           | M00042849:611 | CH16COP   |
| 625    | 451092  | RTA22200026F.h.02.1.P.Seq | F           | M00055487:66  | CH17COHLV |
| 626    | 546642  | RTA22200016F.o.16.1.P.Seq | F           | M00057275:112 | CH16COP   |
| 627    | 553736  | RTA22200022F.j.18.1.P.Seq | F           | M00054952:61  | CH17COHLV |
| 628    | 394413  | RTA22200002F.e.15.1.P.Seq | F           | M00055456:612 | CH15CON   |
| 629    | 556326  | RTA22200021F.j.24.3.P.Seq | F           | M00054812:37  | CH17COHLV |
| 630    | 448606  | RTA22200021F.d.08.2.P.Seq | F           | M00054741:710 | CH17COHLV |
| 631    | 394413  | RTA22200002F.k.19.1.P.Seq | F           | M00055527:52  | CH15CON   |
| 632    | 645633  | RTA22200002F.j.09.1.P.Seq | F           | M00055516:58  | CH15CON   |
| 633    | 551634  | RTA22200021F.j.07.3.P.Seq | F           | M00054808:68  | CH17COHLV |
| 634    | 556326  | RTA22200021F.k.01.3.P.Seq | F           | M00054812:37  | CH17COHLV |
| 635    | 540787  | RTA22200004F.n.21.1.P.Seq | F           | M00055827:42  | CH15CON   |
| 636    | 648872  | RTA22200004F.o.20.1.P.Seq | F           | M00055833:111 | CH15CON   |
| 637    | 643804  | RTA22200004F.f.05.1.P.Seq | F           | M00055775:36  | CH15CON   |
| 638    | 446139  | RTA22200001F.e.06.1.P.Seq | F           | M00042565:18  | CH15CON   |
| 639    | 640356  | RTA22200002F.p.15.1.P.Seq | F           | M00055563:12  | CH15CON   |
| 640    | 379186  | RTA22200015F.i.09.1.P.Seq | F           | M00057099:38  | CH16COP   |
| 641    | 454927  | RTA22200021F.b.13.2.P.Seq | F           | M00054728:58  | CH17COHLV |
| 642    | 401849  | RTA22200004F.h.06.1.P.Seq | F           | M00055790:82  | CH15CON   |
| 643    | 452414  | RTA22200004F.i.20.1.P.Seq | F           | M00055798:36  | CH15CON   |
| 644    | 446789  | RTA22200004F.k.24.1.P.Seq | F           | M00055807:710 | CH15CON   |
| 645    | 189561  | RTA22200022F.n.17.1.P.Seq | F           | M00054985:67  | CH17COHLV |
| 646    | 640323  | RTA22200003F.g.22.1.P.Seq | F           | M00055653:84  | CH15CON   |
| 647    | 558116  | RTA22200024F.h.08.1.P.Seq | F           | M00055201:27  | CH17COHLV |
| 648    | 468109  | RTA22200004F.m.20.1.P.Seq | F           | M00055820:38  | CH15CON   |

Table 1



Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 649    | 481441  | RTA22200003F.b.12.1.P.Seq | F           | M00055583:85  | CH15CON   |
| 650    | 449956  | RTA22200018F.n.17.1.P.Seq | F           | M00043365:36  | CH17COHLV |
| 651    | 727224  | RTA22200013F.p.12.1.P.Seq | F           | M00056913:710 | CH16COP   |
| 652    | 551907  | RTA22200020F.l.04.1.P.Seq | F           | M00054665:88  | CH17COHLV |
| 653    | 447532  | RTA22200004F.a.12.1.P.Seq | F           | M00055736:73  | CH15CON   |
| 654    | 447532  | RTA22200003F.b.14.1.P.Seq | F           | M00055584:311 | CH15CON   |
| 655    | 558454  | RTA22200026F.c.17.1.P.Seq | F           | M00055417:78  | CH17COHLV |
| 656    | 502683  | RTA22200020F.j.12.1.P.Seq | F           | M00054647:82  | CH17COHLV |
| 657    | 446909  | RTA22200023F.n.17.1.P.Seq | F           | M00055112:33  | CH17COHLV |
| 658    | 452506  | RTA22200020F.c.23.1.P.Seq | F           | M00054587:69  | CH17COHLV |
| 659    | 449792  | RTA22200023F.c.02.1.P.Seq | F           | M00055027:68  | CH17COHLV |
| 660    | 549395  | RTA22200020F.i.08.1.P.Seq | F           | M00054638:49  | CH17COHLV |
| 661    | 234653  | RTA22200020F.g.14.1.P.Seq | F           | M00054621:36  | CH17COHLV |
| 662    | 453911  | RTA22200015F.f.01.1.P.Seq | F           | M00057074:39  | CH16COP   |
| 663    | 452071  | RTA22200001F.a.18.1.P.Seq | F           | M00042529:77  | CH15CON   |
| 664    | 451032  | RTA22200018F.g.04.1.P.Seq | F           | M00043310:23  | CH17COHLV |
| 665    | 446680  | RTA22200018F.g.17.1.P.Seq | F           | M00043313:36  | CH17COHLV |
| 666    | 641884  | RTA22200008F.b.08.1.P.Seq | F           | M00056303:24  | CH15CON   |
| 667    | 452800  | RTA22200018F.e.16.1.P.Seq | F           | M00043301:66  | CH17COHLV |
| 668    | 461835  | RTA22200004F.f.08.1.P.Seq | F           | M00055778:69  | CH15CON   |
| 669    | 548965  | RTA22200020F.g.08.1.P.Seq | F           | M00054617:19  | CH17COHLV |
| 670    | 734793  | RTA22200016F.c.20.1.P.Seq | F           | M00057174:812 | CH16COP   |
| 671    | 539955  | RTA22200008F.a.12.1.P.Seq | F           | M00056295:46  | CH15CON   |
| 672    | 561892  | RTA22200020F.f.11.1.P.Seq | F           | M00054609:61  | CH17COHLV |
| 673    | 562292  | RTA22200020F.e.06.1.P.Seq | F           | M00054596:711 | CH17COHLV |
| 674    | 420686  | RTA22200001F.j.02.1.P.Seq | F           | M00042735:72  | CH15CON   |
| 675    | 9436    | RTA22200004F.f.20.1.P.Seq | F           | M00055781:35  | CH15CON   |
| 676    | 1013    | RTA22200004F.e.21.1.P.Seq | F           | M00055774:51  | CH15CON   |
| 677    | 412364  | RTA22200008F.b.07.1.P.Seq | F           | M00056303:33  | CH15CON   |
| 678    | 44424   | RTA22200018F.j.01.1.P.Seq | F           | M00043327:82  | CH17COHLV |
| 679    | 394413  | RTA22200001F.j.18.1.P.Seq | F           | M00042742:45  | CH15CON   |
| 680    | 449617  | RTA22200008F.c.08.1.P.Seq | F           | M00056312:14  | CH15CON   |
| 681    | 455032  | RTA22200018F.l.07.1.P.Seq | F           | M00043347:712 | CH17COHLV |
| 682    | 185400  | RTA22200025F.b.17.1.P.Seq | F           | M00055279:512 | CH17COHLV |
| 683    | 453911  | RTA22200015F.e.24.1.P.Seq | F           | M00057074:39  | CH16COP   |
| 684    | 650297  | RTA22200004F.e.23.1.P.Seq | F           | M00055774:73  | CH15CON   |
| 685    | 185400  | RTA22200018F.k.02.1.P.Seq | F           | M00043338:23  | CH17COHLV |
| 686    | 449512  | RTA22200025F.c.06.1.P.Seq | F           | M00055283:82  | CH17COHLV |
| 687    | 44424   | RTA22200018F.i.24.1.P.Seq | F           | M00043327:82  | CH17COHLV |
| 688    | 556216  | RTA22200025F.h.09.1.P.Seq | F           | M00055350:61  | CH17COHLV |
| 689    | 448677  | RTA22200025F.f.07.1.P.Seq | F           | M00055324:810 | CH17COHLV |
| 690    | 375380  | RTA22200025F.e.16.1.P.Seq | F           | M00055319:11  | CH17COHLV |
| 691    | 379341  | RTA22200018F.a.24.1.P.Seq | F           | M00042442:12  | CH17COHLV |
| 692    | 376988  | RTA22200025F.h.03.1.P.Seq | F           | M00055346:42  | CH17COHLV |
| 693    | 559806  | RTA22200025F.g.20.1.P.Seq | F           | M00055344:89  | CH17COHLV |
| 694    | 550195  | RTA22200025F.j.07.1.P.Seq | F           | M00055368:310 | CH17COHLV |
| 695    | 562221  | RTA22200025F.k.09.1.P.Seq | F           | M00055374:18  | CH17COHLV |
| 696    | 211     | RTA22200248F.o.19.1.P.Seq | F           | M00027607:85  | CH04MAL   |
| 697    | 6751    | RTA22200248F.o.01.1.P.Seq | F           | M00027604:710 | CH04MAL   |
| 698    | 6751    | RTA22200248F.n.24.1.P.Seq | F           | M00027604:710 | CH04MAL   |
| 699    | 11619   | RTA22200250F.d.17.1.P.Seq | F           | M00027806:85  | CH04MAL   |
| 700    | 2883    | RTA22200249F.l.14.1.P.Seq | F           | M00027717:75  | CH04MAL   |
| 701    | 9784    | RTA22200249F.c.12.1.P.Seq | F           | M00027628:11  | CH04MAL   |
| 702    | 649722  | RTA22200010F.i.15.1.P.Seq | F           | M00056424:612 | CH16COP   |

Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 703    | 2888    | RTA22200224F.e.01.1.P.Seq | F           | M00004869:46  | CH02COH   |
| 704    | 10340   | RTA22200233F.p.01.1.P.Seq | F           | M00021681:32  | CH03MAH   |
| 705    | 1649    | RTA22200234F.g.21.1.P.Seq | F           | M00022246:88  | CH03MAH   |
| 706    | 4325    | RTA22200234F.i.13.1.P.Seq | F           | M00022259:27  | CH03MAH   |
| 707    | 10882   | RTA22200249F.f.21.1.P.Seq | F           | M00027658:73  | CH04MAL   |
| 708    | 10342   | RTA22200233F.l.20.1.P.Seq | F           | M00021628:47  | CH03MAH   |
| 709    | 6474    | RTA22200224F.e.16.1.P.Seq | F           | M00004972:51  | CH02COH   |
| 710    | 10340   | RTA22200233F.o.24.1.P.Seq | F           | M00021681:32  | CH03MAH   |
| 711    | 734723  | RTA22200010F.k.06.1.P.Seq | F           | M00056480:312 | CH16COP   |
| 712    | 452142  | RTA22200010F.i.16.1.P.Seq | F           | M00056424:86  | CH16COP   |
| 713    | 185432  | RTA22200249F.o.24.1.P.Seq | F           | M00027742:21  | CH04MAL   |
| 714    | 11456   | RTA22200224F.m.02.1.P.Seq | F           | M00005385:110 | CH02COH   |
| 715    | 508892  | RTA22200010F.p.07.1.P.Seq | F           | M00056517:73  | CH16COP   |
| 716    | 67      | RTA22200224F.f.14.1.P.Seq | F           | M00005019:42  | CH02COH   |
| 717    | 2636    | RTA22200224F.m.17.1.P.Seq | F           | M00005389:311 | CH02COH   |
| 718    | 735028  | RTA22200011F.e.08.1.P.Seq | F           | M00056556:71  | CH16COP   |
| 719    | 1924    | RTA22200224F.n.16.1.P.Seq | F           | M00005395:49  | CH02COH   |
| 720    | 640116  | RTA22200010F.m.24.1.P.Seq | F           | M00056503:711 | CH16COP   |
| 721    | 6546    | RTA22200225F.b.13.1.P.Seq | F           | M00005420:31  | CH02COH   |
| 722    | 730866  | RTA22200010F.p.03.1.P.Seq | F           | M00056515:35  | CH16COP   |
| 723    | 4829    | RTA22200224F.c.02.1.P.Seq | F           | M00004850:75  | CH02COH   |
| 724    | 546632  | RTA22200010F.o.12.1.P.Seq | F           | M00056512:36  | CH16COP   |
| 725    | 549934  | RTA22200019F.i.19.1.P.Seq | F           | M00054510:89  | CH17COHLV |
| 726    | 649655  | RTA22200010F.o.22.1.P.Seq | F           | M00056514:58  | CH16COP   |
| 727    | 62016   | RTA22200019F.k.05.1.P.Seq | F           | M00054520:25  | CH17COHLV |
| 728    | 2783    | RTA22200019F.k.18.1.P.Seq | F           | M00054524:22  | CH17COHLV |
| 729    | 3876    | RTA22200019F.e.03.1.P.Seq | F           | M00043504:76  | CH17COHLV |
| 730    | 20036   | RTA22200019F.f.11.1.P.Seq | F           | M00054486:211 | CH17COHLV |
| 731    | 644032  | RTA22200013F.e.06.1.P.Seq | F           | M00056824:51  | CH16COP   |
| 732    | 451636  | RTA22200018F.o.24.1.P.Seq | F           | M00043374:22  | CH17COHLV |
| 733    | 3428    | RTA22200237F.e.01.1.P.Seq | F           | M00022716:36  | CH03MAH   |
| 734    | 643954  | RTA22200012F.p.22.1.P.Seq | F           | M00056789:510 | CH16COP   |
| 735    | 456506  | RTA22200015F.p.23.1.P.Seq | F           | M00057150:310 | CH16COP   |
| 736    | 449269  | RTA22200014F.p.17.1.P.Seq | F           | M00057035:39  | CH16COP   |
| 737    | 732712  | RTA22200014F.p.03.1.P.Seq | F           | M00057029:16  | CH16COP   |
| 738    | 696     | RTA22200236F.c.13.1.P.Seq | F           | M00022598:512 | CH03MAH   |
| 739    | 456528  | RTA22200014F.n.13.1.P.Seq | F           | M00057019:82  | CH16COP   |
| 740    | 4043    | RTA22200228F.k.21.2.P.Seq | F           | M00006871:61  | CH02COH   |
| 741    | 3639    | RTA22200235F.g.13.1.P.Seq | F           | M00022472:511 | CH03MAH   |
| 742    | 1024    | RTA22200244F.p.09.1.P.Seq | F           | M00027229:56  | CH04MAL   |
| 743    | 1247    | RTA22200236F.i.17.1.P.Seq | F           | M00022645:37  | CH03MAH   |
| 744    | 4934    | RTA22200228F.i.13.2.P.Seq | F           | M00006846:43  | CH02COH   |
| 745    | 901     | RTA22200237F.f.07.1.P.Seq | F           | M00022724:44  | CH03MAH   |
| 746    | 452726  | RTA22200014F.l.04.1.P.Seq | F           | M00057003:29  | CH16COP   |
| 747    | 725825  | RTA22200014F.i.23.1.P.Seq | F           | M00056990:311 | CH16COP   |
| 748    | 456808  | RTA22200014F.a.19.1.P.Seq | F           | M00056924:26  | CH16COP   |
| 749    | 729295  | RTA22200014F.a.21.1.P.Seq | F           | M00056925:37  | CH16COP   |
| 750    | 551907  | RTA22200005F.a.18.1.P.Seq | F           | M00055850:63  | CH15CON   |
| 751    | 551527  | RTA22200014F.k.03.1.P.Seq | F           | M00056998:58  | CH16COP   |
| 752    | 7098    | RTA22200237F.n.22.1.P.Seq | F           | M00022831:87  | CH03MAH   |
| 753    | 4589    | RTA22200225F.k.24.1.P.Seq | F           | M00005501:55  | CH02COH   |
| 754    | 554812  | RTA22200014F.g.21.1.P.Seq | F           | M00056969:38  | CH16COP   |
| 755    | 3114    | RTA22200232F.g.01.1.P.Seq | F           | M00022015:611 | CH03MAH   |
| 756    | 6031    | RTA22200227F.m.13.1.P.Seq | F           | M00006731:43  | CH02COH   |

Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY |
|--------|---------|---------------------------|-------------|---------------|---------|
| 757    | 185628  | RTA22200242F.j.21.1.P.Seq | F           | M00027035:89  | CH04MAL |
| 758    | 24719   | RTA22200244F.j.04.1.P.Seq | F           | M00027197:67  | CH04MAL |
| 759    | 3428    | RTA22200237F.d.24.1.P.Seq | F           | M00022716:36  | CH03MAH |
| 760    | 2676    | RTA22200227F.j.24.1.P.Seq | F           | M00006695:88  | CH02COH |
| 761    | 649148  | RTA22200007F.j.24.1.P.Seq | F           | M00056231:79  | CH15CON |
| 762    | 234605  | RTA22200009F.c.17.2.P.Seq | F           | M00042515:110 | CH16COP |
| 763    | 2224    | RTA22200232F.g.14.1.P.Seq | F           | M00022049:27  | CH03MAH |
| 764    | 185642  | RTA22200243F.a.07.1.P.Seq | F           | M00027076:67  | CH04MAL |
| 765    | 649655  | RTA22200007F.d.16.1.P.Seq | F           | M00056171:811 | CH15CON |
| 766    | 2854    | RTA22200231F.o.23.1.P.Seq | F           | M00007998:67  | CH03MAH |
| 767    | 453470  | RTA22200007F.j.08.1.P.Seq | F           | M00056224:58  | CH15CON |
| 768    | 11012   | RTA22200227F.k.14.1.P.Seq | F           | M00006704:76  | CH02COH |
| 769    | 535208  | RTA22200005F.c.23.1.P.Seq | F           | M00055869:16  | CH15CON |
| 770    | 448606  | RTA22200014F.j.14.1.P.Seq | F           | M00056994:33  | CH16COP |
| 771    | 12304   | RTA22200244F.b.17.1.P.Seq | F           | M00027172:33  | CH04MAL |
| 772    | 2756    | RTA22200229F.h.17.1.P.Seq | F           | M00006989:54  | CH02COH |
| 773    | 367     | RTA22200005F.d.04.1.P.Seq | F           | M00055871:65  | CH15CON |
| 774    | 11351   | RTA22200229F.c.09.1.P.Seq | F           | M00006937:63  | CH02COH |
| 775    | 6858    | RTA22200228F.n.03.2.P.Seq | F           | M00006888:75  | CH02COH |
| 776    | 7750    | RTA22200241F.g.01.1.P.Seq | F           | M00026899:711 | CH04MAL |
| 777    | 6923    | RTA22200232F.h.12.1.P.Seq | F           | M00022060:69  | CH03MAH |
| 778    | 11552   | RTA22200232F.p.03.1.P.Seq | F           | M00022163:38  | CH03MAH |
| 779    | 12448   | RTA22200243F.c.10.1.P.Seq | F           | M00027090:58  | CH04MAL |
| 780    | 2944    | RTA22200227F.m.11.1.P.Seq | F           | M00006731:22  | CH02COH |
| 781    | 10342   | RTA22200231F.l.03.1.P.Seq | F           | M00007981:24  | CH03MAH |
| 782    | 9026    | RTA22200222F.o.20.1.P.Seq | F           | M00004304:47  | CH01COH |
| 783    | 10342   | RTA22200238F.m.23.1.P.Seq | F           | M00022997:38  | CH03MAH |
| 784    | 6455    | RTA22200235F.f.08.1.P.Seq | F           | M00022465:65  | CH03MAH |
| 785    | 6455    | RTA22200232F.b.15.1.P.Seq | F           | M00021886:66  | CH03MAH |
| 786    | 3416    | RTA22200227F.k.16.1.P.Seq | F           | M00006705:79  | CH02COH |
| 787    | 3416    | RTA22200229F.a.12.1.P.Seq | F           | M00006923:85  | CH02COH |
| 788    | 2889    | RTA22200228F.n.19.2.P.Seq | F           | M00006894:13  | CH02COH |
| 789    | 7393    | RTA22200241F.l.09.1.P.Seq | F           | M00026934:59  | CH04MAL |
| 790    | 14390   | RTA22200244F.i.10.1.P.Seq | F           | M00027193:35  | CH04MAL |
| 791    | 661     | RTA22200241F.a.15.1.P.Seq | F           | M00026856:311 | CH04MAL |
| 792    | 452992  | RTA22200013F.e.07.1.P.Seq | F           | M00056826:212 | CH16COP |
| 793    | 1943    | RTA22200235F.k.21.2.P.Seq | F           | M00022528:812 | CH03MAH |
| 794    | 2027    | RTA22200244F.l.20.1.P.Seq | F           | M00027207:59  | CH04MAL |
| 795    | 5482    | RTA22200225F.p.15.1.P.Seq | F           | M00005565:65  | CH02COH |
| 796    | 650493  | RTA22200007F.c.10.1.P.Seq | F           | M00056156:112 | CH15CON |
| 797    | 640318  | RTA22200007F.b.04.1.P.Seq | F           | M00056145:24  | CH15CON |
| 798    | 646309  | RTA22200011F.p.23.1.P.Seq | F           | M00056661:55  | CH16COP |
| 799    | 4316    | RTA22200248F.e.15.1.P.Seq | F           | M00027543:77  | CH04MAL |
| 800    | 449701  | RTA22200012F.d.12.1.P.Seq | F           | M00056695:89  | CH16COP |
| 801    | 560367  | RTA22200013F.e.03.1.P.Seq | F           | M00056824:310 | CH16COP |
| 802    | 9997    | RTA22200238F.o.18.1.P.Seq | F           | M00023015:42  | CH03MAH |
| 803    | 649106  | RTA22200012F.f.03.1.P.Seq | F           | M00056707:52  | CH16COP |
| 804    | 461835  | RTA22200007F.b.18.1.P.Seq | F           | M00056150:312 | CH15CON |
| 805    | 640590  | RTA22200003F.m.09.1.P.Seq | F           | M00055703:35  | CH15CON |
| 806    | 648340  | RTA22200007F.a.08.1.P.Seq | F           | M00056139:54  | CH15CON |
| 807    | 554812  | RTA22200014F.g.21.2.P.Seq | F           | M00056969:38  | CH16COP |
| 808    | 447035  | RTA22200007F.m.06.1.P.Seq | F           | M00056252:511 | CH15CON |
| 809    | 1208    | RTA22200238F.g.03.1.P.Seq | F           | M00022908:83  | CH03MAH |
| 810    | 3114    | RTA22200232F.f.24.1.P.Seq | F           | M00022015:611 | CH03MAH |



Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
|--------|---------|---------------------------|-------------|---------------|-----------|
| 811    | 3114    | RTA22200232F.n.22.1.P.Seq | F           | M00022149:36  | CH03MAH   |
| 812    | 734078  | RTA22200013F.j.12.1.P.Seq | F           | M00056870:510 | CH16COP   |
| 813    | 450323  | RTA22200015F.o.17.1.P.Seq | F           | M00057141:42  | CH16COP   |
| 814    | 11567   | RTA22200232F.f.16.1.P.Seq | F           | M00022010:81  | CH03MAH   |
| 815    | 11567   | RTA22200232F.c.14.1.P.Seq | F           | M00021915:510 | CH03MAH   |
| 816    | 6660    | RTA22200222F.j.01.1.P.Seq | F           | M00003986:712 | CH01COH   |
| 817    | 9026    | RTA22200222F.n.12.1.P.Seq | F           | M00004198:111 | CH01COH   |
| 818    | 185539  | RTA22200243F.b.09.1.P.Seq | F           | M00027084:810 | CH04MAL   |
| 819    | 3224    | RTA22200222F.d.01.1.P.Seq | F           | M00001537:610 | CH01COH   |
| 820    | 95700   | RTA22200240F.l.12.1.P.Seq | F           | M00026804:43  | CH04MAL   |
| 821    | 4439    | RTA22200222F.n.01.1.P.Seq | F           | M00004167:411 | CH01COH   |
| 822    | 3428    | RTA22200236F.n.08.1.P.Seq | F           | M00022667:511 | CH03MAH   |
| 823    | 1456    | RTA22200236F.p.05.1.P.Seq | F           | M00022681:56  | CH03MAH   |
| 824    | 11343   | RTA22200228F.g.03.1.P.Seq | F           | M00006822:59  | CH02COH   |
| 825    | 729206  | RTA22200012F.k.20.1.P.Seq | F           | M00056746:46  | CH16COP   |
| 826    | 558371  | RTA22200015F.p.13.1.P.Seq | F           | M00057147:11  | CH16COP   |
| 827    | 451589  | RTA22200011F.m.21.1.P.Seq | F           | M00056635:59  | CH16COP   |
| 828    | 404475  | RTA22200012F.f.10.1.P.Seq | F           | M00056708:36  | CH16COP   |
| 829    | 734582  | RTA22200017F.e.07.1.P.Seq | F           | M00057334:61  | CH16COP   |
| 830    | 729779  | RTA22200011F.i.11.1.P.Seq | F           | M00056596:52  | CH16COP   |
| 831    | 555244  | RTA22200023F.l.23.1.P.Seq | F           | M00055093:85  | CH17COHLV |
| 832    | 449269  | RTA22200014F.p.17.2.P.Seq | F           | M00057035:39  | CH16COP   |
| 833    | 4609    | RTA22200227F.a.11.1.P.Seq | F           | M00006583:83  | CH02COH   |
| 834    | 640318  | RTA22200011F.i.13.1.P.Seq | F           | M00056596:56  | CH16COP   |
| 835    | 729851  | RTA22200011F.j.22.1.P.Seq | F           | M00056610:812 | CH16COP   |
| 836    | 11028   | RTA22200230F.a.15.1.P.Seq | F           | M00007098:35  | CH02COH   |
| 837    | 643924  | RTA22200008F.e.17.1.P.Seq | F           | M00056345:53  | CH15CON   |
| 838    | 630259  | RTA22200005F.i.07.1.P.Seq | F           | M00055908:811 | CH15CON   |
| 839    | 11286   | RTA22200230F.k.07.1.P.Seq | F           | M00007194:56  | CH02COH   |
| 840    | 185651  | RTA22200248F.g.16.1.P.Seq | F           | M00027556:710 | CH04MAL   |
| 841    | 7379    | RTA22200230F.d.19.1.P.Seq | F           | M00007128:76  | CH02COH   |
| 842    | 728408  | RTA22200014F.p.13.2.P.Seq | F           | M00057033:69  | CH16COP   |
| 843    | 646309  | RTA22200007F.e.15.1.P.Seq | F           | M00056184:83  | CH15CON   |
| 844    | 405073  | RTA22200003F.m.14.1.P.Seq | F           | M00055704:47  | CH15CON   |
| 845    | 185489  | RTA22200241F.j.24.1.P.Seq | F           | M00026926:35  | CH04MAL   |
| 846    | 447326  | RTA22200005F.i.15.1.P.Seq | F           | M00055909:58  | CH15CON   |
| 847    | 11006   | RTA22200227F.c.15.1.P.Seq | F           | M00006610:48  | CH02COH   |
| 848    | 6863    | RTA22200227F.a.23.1.P.Seq | F           | M00006588:86  | CH02COH   |
| 849    | 11351   | RTA22200225F.p.12.1.P.Seq | F           | M00005563:212 | CH02COH   |
| 850    | 401553  | RTA22200005F.f.13.1.P.Seq | F           | M00055884:21  | CH15CON   |
| 851    | 504513  | RTA22200007F.h.19.1.P.Seq | F           | M00056213:14  | CH15CON   |
| 852    | 645979  | RTA22200012F.g.11.1.P.Seq | F           | M00056713:78  | CH16COP   |
| 853    | 6923    | RTA22200233F.b.21.1.P.Seq | F           | M00008023:412 | CH03MAH   |
| 854    | 1924    | RTA22200229F.l.18.1.P.Seq | F           | M00007034:26  | CH02COH   |
| 855    | 5838    | RTA22200230F.f.02.1.P.Seq | F           | M00007136:35  | CH02COH   |
| 856    | 2062    | RTA22200230F.f.24.1.P.Seq | F           | M00007146:611 | CH02COH   |
| 857    | 447388  | RTA22200003F.b.06.1.P.Seq | F           | M00055581:21  | CH15CON   |
| 858    | 12419   | RTA22200241F.c.04.1.P.Seq | F           | M00026865:711 | CH04MAL   |
| 859    | 3224    | RTA22200222F.c.24.1.P.Seq | F           | M00001537:610 | CH01COH   |
| 860    | 5474    | RTA22200230F.i.23.1.P.Seq | F           | M00007174:46  | CH02COH   |
| 861    | 3522    | RTA22200227F.f.23.1.P.Seq | F           | M00006650:45  | CH02COH   |
| 862    | 731785  | RTA22200012F.o.21.1.P.Seq | F           | M00056777:67  | CH16COP   |
| 863    | 3765    | RTA22200228F.d.10.1.P.Seq | F           | M00006803:37  | CH02COH   |
| 864    | 640323  | RTA22200012F.a.10.1.P.Seq | F           | M00056664:76  | CH16COP   |

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 865    | 379105  | RTA22200012F.i.11.1.P.Seq | F           | M00056728:85  | CH16COP   |
| 866    | 448029  | RTA22200012F.n.03.1.P.Seq | F           | M00056764:58  | CH16COP   |
| 867    | 650476  | RTA22200005F.h.07.1.P.Seq | F           | M00055893:35  | CH15CON   |
| 868    | 640525  | RTA22200007F.f.12.1.P.Seq | F           | M00056192:82  | CH15CON   |
| 869    | 390124  | RTA22200007F.n.09.1.P.Seq | F           | M00056267:52  | CH15CON   |
| 870    | 464029  | RTA22200023F.p.21.1.P.Seq | F           | M00055137:34  | CH17COHLV |
| 871    | 468109  | RTA22200005F.e.18.1.P.Seq | F           | M00055880:612 | CH15CON   |
| 872    | 21669   | RTA22200023F.h.20.1.P.Seq | F           | M00055064:512 | CH17COHLV |
| 873    | 651088  | RTA22200007F.j.07.2.P.Seq | F           | M00056224:210 | CH15CON   |
| 874    | 2737    | RTA22200023F.d.15.1.P.Seq | F           | M00055039:71  | CH17COHLV |
| 875    | 556421  | RTA22200005F.e.14.1.P.Seq | F           | M00055879:44  | CH15CON   |
| 876    | 452245  | RTA22200023F.c.23.1.P.Seq | F           | M00055034:81  | CH17COHLV |
| 877    | 447539  | RTA22200005F.e.22.1.P.Seq | F           | M00055882:19  | CH15CON   |
| 878    | 546642  | RTA22200014F.o.20.2.P.Seq | F           | M00057029:312 | CH16COP   |
| 879    | 236368  | RTA22200006F.j.23.2.P.Seq | F           | M00056077:56  | CH15CON   |
| 880    | 644523  | RTA22200012F.b.12.1.P.Seq | F           | M00056673:56  | CH16COP   |
| 881    | 729173  | RTA22200012F.k.02.1.P.Seq | F           | M00056739:411 | CH16COP   |
| 882    | 8315    | RTA22200231F.a.06.1.P.Seq | F           | M00007927:31  | CH03MAH   |
| 883    | 450463  | RTA22200007F.i.11.2.P.Seq | F           | M00056218:73  | CH15CON   |
| 884    | 650856  | RTA22200012F.o.13.1.P.Seq | F           | M00056775:31  | CH16COP   |
| 885    | 648109  | RTA22200005F.i.14.1.P.Seq | F           | M00055909:71  | CH15CON   |
| 886    | 726644  | RTA22200013F.d.19.1.P.Seq | F           | M00056822:711 | CH16COP   |
| 887    | 727224  | RTA22200013F.h.19.1.P.Seq | F           | M00056859:412 | CH16COP   |
| 888    | 557906  | RTA22200023F.h.18.1.P.Seq | F           | M00055063:71  | CH17COHLV |
| 889    | 502683  | RTA22200007F.e.22.1.P.Seq | F           | M00056185:46  | CH15CON   |
| 890    | 728408  | RTA22200011F.i.06.1.P.Seq | F           | M00056594:310 | CH16COP   |
| 891    | 647952  | RTA22200005F.j.11.1.P.Seq | F           | M00055919:16  | CH15CON   |
| 892    | 639991  | RTA22200009F.l.23.2.P.Seq | F           | M00042846:49  | CH16COP   |
| 893    | 735346  | RTA22200016F.m.21.1.P.Seq | F           | M00057266:44  | CH16COP   |
| 894    | 102655  | RTA22200007F.i.23.2.P.Seq | F           | M00056222:62  | CH15CON   |
| 895    | 553629  | RTA22200012F.o.03.1.P.Seq | F           | M00056772:58  | CH16COP   |
| 896    | 1609    | RTA22200226F.i.23.1.P.Seq | F           | M00005708:27  | CH02COH   |
| 897    | 641884  | RTA22200005F.l.16.1.P.Seq | F           | M00055937:32  | CH15CON   |
| 898    | 648872  | RTA22200007F.p.10.1.P.Seq | F           | M00056286:112 | CH15CON   |
| 899    | 644242  | RTA22200005F.i.20.1.P.Seq | F           | M00055911:56  | CH15CON   |
| 900    | 63559   | RTA22200244F.f.14.1.P.Seq | F           | M00027183:21  | CH04MAL   |
| 901    | 550108  | RTA22200012F.o.24.1.P.Seq | F           | M00056779:810 | CH16COP   |
| 902    | 374306  | RTA22200011F.n.05.1.P.Seq | F           | M00056639:52  | CH16COP   |
| 903    | 5838    | RTA22200226F.c.19.1.P.Seq | F           | M00005621:88  | CH02COH   |
| 904    | 645530  | RTA22200006F.k.07.2.P.Seq | F           | M00056079:67  | CH15CON   |
| 905    | 649732  | RTA22200012F.b.05.1.P.Seq | F           | M00056669:77  | CH16COP   |
| 906    | 649143  | RTA22200007F.p.01.1.P.Seq | F           | M00056283:52  | CH15CON   |
| 907    | 7571    | RTA22200225F.h.24.1.P.Seq | F           | M00005481:36  | CH02COH   |
| 908    | 4572    | RTA22200236F.j.09.1.P.Seq | F           | M00022651:31  | CH03MAH   |
| 909    | 2147    | RTA22200229F.j.14.1.P.Seq | F           | M00007006:11  | CH02COH   |
| 910    | 462659  | RTA22200008F.h.10.1.P.Seq | F           | M00056475:62  | CH15CON   |
| 911    | 727723  | RTA22200012F.m.21.1.P.Seq | F           | M00056761:65  | CH16COP   |
| 912    | 2636    | RTA22200226F.g.21.1.P.Seq | F           | M00005657:112 | CH02COH   |
| 913    | 500959  | RTA22200005F.k.21.1.P.Seq | F           | M00055931:51  | CH15CON   |
| 914    | 3428    | RTA22200231F.f.07.1.P.Seq | F           | M00007954:24  | CH03MAH   |
| 915    | 734929  | RTA22200011F.h.24.1.P.Seq | F           | M00056592:47  | CH16COP   |
| 916    | 453592  | RTA22200001F.g.19.1.P.Seq | F           | M00042706:14  | CH15CON   |
| 917    | 15414   | RTA22200026F.d.21.1.P.Seq | F           | M00055423:810 | CH17COHLV |
| 918    | 648959  | RTA22200002F.m.22.1.P.Seq | F           | M00055542:19  | CH15CON   |

Table 1

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| 920    | 649272  | RTA22200007F.k.03.2.P.Seq | F           | M00056232:56  | CH15CON   |
| 921    | 1699    | RTA22200012F.p.06.1.P.Seq | F           | M00056781:512 | CH16COP   |
| 922    | 649719  | RTA22200006F.m.21.2.P.Seq | F           | M00056098:81  | CH15CON   |
| 923    | 562805  | RTA22200023F.d.08.1.P.Seq | F           | M00055037:510 | CH17COHLV |
| 924    | 452204  | RTA22200001F.p.24.1.P.Seq | F           | M00054918:311 | CH15CON   |
| 925    | 549178  | RTA22200023F.d.22.1.P.Seq | F           | M00055041:52  | CH17COHLV |
| 926    | 639177  | RTA22200015F.n.24.1.P.Seq | F           | M00057134:710 | CH16COP   |
| 927    | 562550  | RTA22200022F.i.05.1.P.Seq | F           | M00054941:74  | CH17COHLV |
| 928    | 561807  | RTA22200004F.l.07.1.P.Seq | F           | M00055808:711 | CH15CON   |
| 929    | 641373  | RTA22200006F.m.23.2.P.Seq | F           | M00056099:79  | CH15CON   |
| 930    | 514418  | RTA22200022F.a.15.1.P.Seq | F           | M00054870:49  | CH17COHLV |
| 931    | 567078  | RTA22200006F.b.18.2.P.Seq | F           | M00056007:111 | CH15CON   |
| 932    | 643061  | RTA22200006F.n.01.2.P.Seq | F           | M00056099:811 | CH15CON   |
| 933    | 549160  | RTA22200020F.i.09.1.P.Seq | F           | M00054638:38  | CH17COHLV |
| 934    | 449269  | RTA22200009F.e.07.1.P.Seq | F           | M00042770:212 | CH16COP   |
| 935    | 453082  | RTA22200001F.e.03.1.P.Seq | F           | M00042564:811 | CH15CON   |
| 936    | 418135  | RTA22200026F.a.09.1.P.Seq | F           | M00055406:45  | CH17COHLV |
| 937    | 2783    | RTA22200023F.b.23.1.P.Seq | F           | M00055027:47  | CH17COHLV |
| 938    | 549435  | RTA22200007F.j.06.2.P.Seq | F           | M00056223:73  | CH15CON   |
| 939    | 446614  | RTA22200009F.i.13.2.P.Seq | F           | M00042816:64  | CH16COP   |
| 940    | 449477  | RTA22200012F.p.04.1.P.Seq | F           | M00056780:32  | CH16COP   |
| 941    | 454380  | RTA22200013F.c.09.1.P.Seq | F           | M00056815:21  | CH16COP   |
| 942    | 450914  | RTA22200013F.c.05.1.P.Seq | F           | M00056812:58  | CH16COP   |
| 943    | 736860  | RTA22200016F.p.14.1.P.Seq | F           | M00057283:56  | CH16COP   |
| 944    | 727224  | RTA22200011F.h.19.1.P.Seq | F           | M00056592:64  | CH16COP   |
| 945    | 644242  | RTA22200006F.a.19.2.P.Seq | F           | M00056000:612 | CH15CON   |
| 946    | 562550  | RTA22200022F.p.09.1.P.Seq | F           | M00055002:54  | CH17COHLV |
| 947    | 649148  | RTA22200007F.j.24.2.P.Seq | F           | M00056231:79  | CH15CON   |
| 948    | 375889  | RTA22200023F.c.13.1.P.Seq | F           | M00055032:16  | CH17COHLV |
| 949    | 449437  | RTA22200009F.e.03.1.P.Seq | F           | M00042767:42  | CH16COP   |
| 950    | 449044  | RTA22200006F.b.07.2.P.Seq | F           | M00056003:56  | CH15CON   |
| 951    | 555318  | RTA22200022F.e.11.1.P.Seq | F           | M00054903:312 | CH17COHLV |
| 952    | 456764  | RTA22200005F.k.20.1.P.Seq | F           | M00055931:31  | CH15CON   |
| 953    | 11567   | RTA22200231F.g.22.1.P.Seq | F           | M00007965:710 | CH03MAH   |
| 954    | 3522    | RTA22200229F.j.18.1.P.Seq | F           | M00007007:85  | CH02COH   |
| 955    | 456528  | RTA22200016F.p.05.1.P.Seq | F           | M00057280:16  | CH16COP   |
| 956    | 639142  | RTA22200013F.m.02.1.P.Seq | F           | M00056887:68  | CH16COP   |
| 957    | 446371  | RTA22200001F.e.10.1.P.Seq | F           | M00042567:31  | CH15CON   |
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| 959    | 448029  | RTA22200009F.m.10.1.P.Seq | F           | M00042848:712 | CH16COP   |
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| 962    | 729295  | RTA22200014F.a.21.2.P.Seq | F           | M00056925:37  | CH16COP   |
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| 964    | 648996  | RTA22200004F.d.22.1.P.Seq | F           | M00055768:25  | CH15CON   |
| 965    | 447126  | RTA22200001F.e.18.1.P.Seq | F           | M00042573:17  | CH15CON   |
| 966    | 730866  | RTA22200013F.p.20.1.P.Seq | F           | M00056916:22  | CH16COP   |
| 967    | 420686  | RTA22200020F.o.02.1.P.Seq | F           | M00054692:41  | CH17COHLV |
| 968    | 451753  | RTA22200017F.b.07.1.P.Seq | F           | M00057304:51  | CH16COP   |
| 969    | 451380  | RTA22200021F.d.12.2.P.Seq | F           | M00054743:52  | CH17COHLV |
| 970    | 645530  | RTA22200003F.l.11.1.P.Seq | F           | M00055689:67  | CH15CON   |
| 971    | 554703  | RTA22200016F.m.22.1.P.Seq | F           | M00057266:712 | CH16COP   |
| 972    | 562835  | RTA22200015F.n.20.1.P.Seq | F           | M00057134:11  | CH16COP   |

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 973    | 732764  | RTA22200016F.m.14.1.P.Seq | F           | M00057259:28  | CH16COP   |
| 974    | 556216  | RTA22200019F.l.17.1.P.Seq | F           | M00054534:42  | CH17COHLV |
| 975    | 728779  | RTA22200017F.c.19.1.P.Seq | F           | M00057318:29  | CH16COP   |
| 976    | 414739  | RTA22200002F.n.19.1.P.Seq | F           | M00055547:410 | CH15CON   |
| 977    | 551514  | RTA22200022F.k.05.1.P.Seq | F           | M00054953:710 | CH17COHLV |
| 978    | 550107  | RTA22200023F.p.02.1.P.Seq | F           | M00055130:71  | CH17COHLV |
| 979    | 726786  | RTA22200017F.a.10.1.P.Seq | F           | M00057291:26  | CH16COP   |
| 980    | 456747  | RTA22200001F.f.23.1.P.Seq | F           | M00042700:11  | CH15CON   |
| 981    | 562550  | RTA22200023F.n.13.1.P.Seq | F           | M00055111:43  | CH17COHLV |
| 982    | 549722  | RTA22200002F.p.13.1.P.Seq | F           | M00055560:66  | CH15CON   |
| 983    | 640525  | RTA22200004F.i.10.1.P.Seq | F           | M00055796:510 | CH15CON   |
| 984    | 455542  | RTA22200009F.f.23.1.P.Seq | F           | M00042787:59  | CH16COP   |
| 985    | 9436    | RTA22200016F.n.12.1.P.Seq | F           | M00057270:54  | CH16COP   |
| 986    | 380284  | RTA22200004F.c.17.1.P.Seq | F           | M00055755:83  | CH15CON   |
| 987    | 556260  | RTA22200020F.p.08.1.P.Seq | F           | M00054707:55  | CH17COHLV |
| 988    | 650476  | RTA22200013F.p.21.1.P.Seq | F           | M00056916:64  | CH16COP   |
| 989    | 554500  | RTA22200006F.n.14.2.P.Seq | F           | M00056103:812 | CH15CON   |
| 990    | 422375  | RTA22200016F.n.16.1.P.Seq | F           | M00057272:23  | CH16COP   |
| 991    | 456528  | RTA22200019F.l.23.1.P.Seq | F           | M00054535:89  | CH17COHLV |
| 992    | 644190  | RTA22200009F.m.23.1.P.Seq | F           | M00042853:73  | CH16COP   |
| 993    | 554080  | RTA22200014F.o.19.3.P.Seq | F           | M00057028:49  | CH16COP   |
| 994    | 546705  | RTA22200021F.i.06.3.P.Seq | F           | M00054781:24  | CH17COHLV |
| 995    | 558337  | RTA22200021F.a.02.2.P.Seq | F           | M00054720:611 | CH17COHLV |
| 996    | 449269  | RTA22200014F.p.17.3.P.Seq | F           | M00057035:39  | CH16COP   |
| 997    | 645799  | RTA22200014F.d.22.2.P.Seq | F           | M00056952:84  | CH16COP   |
| 998    | 456506  | RTA22200001F.l.10.1.P.Seq | F           | M00042889:19  | CH15CON   |
| 999    | 218416  | RTA22200026F.c.09.1.P.Seq | F           | M00055414:111 | CH17COHLV |
| 1000   | 455820  | RTA22200023F.m.12.1.P.Seq | F           | M00055097:76  | CH17COHLV |
| 1001   | 554703  | RTA22200024F.p.19.1.P.Seq | F           | M00055262:211 | CH17COHLV |
| 1002   | 650204  | RTA22200008F.c.16.1.P.Seq | F           | M00056313:67  | CH15CON   |
| 1003   | 456808  | RTA22200014F.a.19.2.P.Seq | F           | M00056924:26  | CH16COP   |
| 1004   | 420686  | RTA22200004F.n.01.1.P.Seq | F           | M00055821:16  | CH15CON   |
| 1005   | 378373  | RTA22200023F.n.20.1.P.Seq | F           | M00055114:111 | CH17COHLV |
| 1006   | 463824  | RTA22200004F.a.22.1.P.Seq | F           | M00055740:69  | CH15CON   |
| 1007   | 24939   | RTA22200016F.i.15.1.P.Seq | F           | M00057229:66  | CH16COP   |
| 1008   | 556561  | RTA22200022F.n.08.1.P.Seq | F           | M00054981:36  | CH17COHLV |
| 1009   | 380406  | RTA22200001F.l.13.1.P.Seq | F           | M00042890:38  | CH15CON   |
| 1010   | 456764  | RTA22200004F.a.10.1.P.Seq | F           | M00055736:46  | CH15CON   |
| 1011   | 725703  | RTA22200016F.a.04.1.P.Seq | F           | M00057154:46  | CH16COP   |
| 1012   | 185465  | RTA22200009F.g.10.1.P.Seq | F           | M00042793:76  | CH16COP   |
| 1013   | 5830    | RTA22200013F.m.20.1.P.Seq | F           | M00056894:76  | CH16COP   |
| 1014   | 539955  | RTA22200013F.o.22.1.P.Seq | F           | M00056909:49  | CH16COP   |
| 1015   | 640747  | RTA22200002F.o.17.1.P.Seq | F           | M00055553:37  | CH15CON   |
| 1016   | 500630  | RTA22200013F.n.12.1.P.Seq | F           | M00056901:16  | CH16COP   |
| 1017   | 448511  | RTA22200022F.n.14.1.P.Seq | F           | M00054984:37  | CH17COHLV |
| 1018   | 405073  | RTA22200002F.b.21.1.P.Seq | F           | M00055438:36  | CH15CON   |
| 1019   | 641439  | RTA22200003F.l.08.1.P.Seq | F           | M00055688:24  | CH15CON   |
| 1020   | 406092  | RTA22200004F.a.20.1.P.Seq | F           | M00055740:212 | CH15CON   |
| 1021   | 559806  | RTA22200022F.o.02.1.P.Seq | F           | M00054987:32  | CH17COHLV |
| 1022   | 380284  | RTA22200002F.l.11.1.P.Seq | F           | M00055529:22  | CH15CON   |
| 1023   | 560700  | RTA22200026F.f.08.1.P.Seq | F           | M00055475:78  | CH17COHLV |
| 1024   | 552879  | RTA22200024F.m.13.1.P.Seq | F           | M00055242:11  | CH17COHLV |
| 1025   | 640590  | RTA22200003F.l.14.1.P.Seq | F           | M00055692:57  | CH15CON   |
| 1026   | 641683  | RTA22200003F.k.24.1.P.Seq | F           | M00055685:51  | CH15CON   |

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 1028   | 557948  | RTA22200021F.g.09.3.P.Seq | F           | M00054766:24  | CH17COHLV |
| 1029   | 377094  | RTA22200021F.d.05.2.P.Seq | F           | M00054741:510 | CH17COHLV |
| 1030   | 449617  | RTA22200026F.c.15.1.P.Seq | F           | M00055415:811 | CH17COHLV |
| 1031   | 978     | RTA22200004F.m.17.1.P.Seq | F           | M00055820:58  | CH15CON   |
| 1032   | 607430  | RTA22200024F.n.10.1.P.Seq | F           | M00055247:111 | CH17COHLV |
| 1033   | 641837  | RTA22200003F.b.20.1.P.Seq | F           | M00055586:65  | CH15CON   |
| 1034   | 449750  | RTA22200021F.h.08.3.P.Seq | F           | M00054773:112 | CH17COHLV |
| 1035   | 646780  | RTA22200004F.m.23.1.P.Seq | F           | M00055820:710 | CH15CON   |
| 1036   | 546642  | RTA22200014F.o.20.3.P.Seq | F           | M00057029:312 | CH16COP   |
| 1037   | 642906  | RTA22200014F.i.13.2.P.Seq | F           | M00056985:35  | CH16COP   |
| 1038   | 552879  | RTA22200024F.g.10.1.P.Seq | F           | M00055196:19  | CH17COHLV |
| 1039   | 644205  | RTA22200003F.d.03.1.P.Seq | F           | M00055602:710 | CH15CON   |
| 1040   | 506744  | RTA22200021F.n.01.2.P.Seq | F           | M00054841:27  | CH17COHLV |
| 1041   | 557797  | RTA22200024F.c.03.1.P.Seq | F           | M00055154:64  | CH17COHLV |
| 1042   | 640356  | RTA22200004F.h.18.1.P.Seq | F           | M00055792:57  | CH15CON   |
| 1043   | 462659  | RTA22200001F.i.16.1.P.Seq | F           | M00042732:79  | CH15CON   |
| 1044   | 645633  | RTA22200008F.a.01.1.P.Seq | F           | M00056291:25  | CH15CON   |
| 1045   | 237288  | RTA22200002F.g.19.1.P.Seq | F           | M00055495:63  | CH15CON   |
| 1046   | 454343  | RTA22200016F.d.13.1.P.Seq | F           | M00057181:46  | CH16COP   |
| 1047   | 386543  | RTA22200024F.g.20.1.P.Seq | F           | M00055198:67  | CH17COHLV |
| 1048   | 446404  | RTA22200003F.b.10.1.P.Seq | F           | M00055582:54  | CH15CON   |
| 1049   | 456528  | RTA22200014F.n.13.2.P.Seq | F           | M00057019:82  | CH16COP   |
| 1050   | 456528  | RTA22200015F.l.08.1.P.Seq | F           | M00057118:32  | CH16COP   |
| 1051   | 452781  | RTA22200004F.o.03.1.P.Seq | F           | M00055827:36  | CH15CON   |
| 1052   | 551671  | RTA22200021F.b.20.2.P.Seq | F           | M00054729:51  | CH17COHLV |
| 1053   | 644242  | RTA22200004F.h.08.1.P.Seq | F           | M00055791:45  | CH15CON   |
| 1054   | 561892  | RTA22200025F.n.14.2.P.Seq | F           | M00055391:76  | CH17COHLV |
| 1055   | 450429  | RTA22200004F.e.09.1.P.Seq | F           | M00055771:41  | CH15CON   |
| 1056   | 533588  | RTA22200001F.k.13.1.P.Seq | F           | M00042881:38  | CH15CON   |
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| 1059   | 193486  | RTA22200020F.b.22.1.P.Seq | F           | M00054580:411 | CH17COHLV |
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| 1063   | 403632  | RTA22200020F.b.08.1.P.Seq | F           | M00054575:31  | CH17COHLV |
| 1064   | 390124  | RTA22200021F.n.17.2.P.Seq | F           | M00054849:811 | CH17COHLV |
| 1065   | 390124  | RTA22200016F.i.16.1.P.Seq | F           | M00057230:412 | CH16COP   |
| 1066   | 422687  | RTA22200015F.e.14.1.P.Seq | F           | M00057072:52  | CH16COP   |
| 1067   | 394413  | RTA22200001F.k.11.1.P.Seq | F           | M00042750:29  | CH15CON   |
| 1068   | 549178  | RTA22200020F.a.18.1.P.Seq | F           | M00054571:31  | CH17COHLV |
| 1069   | 453079  | RTA22200004F.e.11.1.P.Seq | F           | M00055771:111 | CH15CON   |
| 1070   | 463824  | RTA22200001F.j.03.1.P.Seq | F           | M00042735:17  | CH15CON   |
| 1071   | 736595  | RTA22200016F.d.16.1.P.Seq | F           | M00057182:211 | CH16COP   |
| 1072   | 102655  | RTA22200004F.m.02.1.P.Seq | F           | M00055816:61  | CH15CON   |
| 1073   | 448606  | RTA22200014F.j.14.2.P.Seq | F           | M00056994:33  | CH16COP   |
| 1074   | 504513  | RTA22200004F.n.12.1.P.Seq | F           | M00055823:411 | CH15CON   |
| 1075   | 20036   | RTA22200004F.f.12.1.P.Seq | F           | M00055779:12  | CH15CON   |
| 1076   | 530883  | RTA22200016F.d.08.1.P.Seq | F           | M00057180:811 | CH16COP   |
| 1077   | 447126  | RTA22200004F.o.18.1.P.Seq | F           | M00055832:512 | CH15CON   |
| 1078   | 556561  | RTA22200025F.d.13.1.P.Seq | F           | M00055302:62  | CH17COHLV |
| 1079   | 455096  | RTA22200020F.e.15.1.P.Seq | F           | M00054600:77  | CH17COHLV |
| 1080   | 549320  | RTA22200020F.g.16.1.P.Seq | F           | M00054621:411 | CH17COHLV |

Table 1



Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 1082   | 450791  | RTA22200018F.k.03.1.P.Seq | F           | M00043338:13  | CH17COHLV |
| 1083   | 16556   | RTA22200025F.c.02.1.P.Seq | F           | M00055281:58  | CH17COHLV |
| 1084   | 402707  | RTA22200018F.d.23.1.P.Seq | F           | M00042520:64  | CH17COHLV |
| 1085   | 557903  | RTA22200025F.b.15.1.P.Seq | F           | M00055279:78  | CH17COHLV |
| 1086   | 451243  | RTA22200018F.i.18.1.P.Seq | F           | M00043324:44  | CH17COHLV |
| 1087   | 452506  | RTA22200025F.b.06.1.P.Seq | F           | M00055274:62  | CH17COHLV |
| 1088   | 554703  | RTA22200025F.g.23.1.P.Seq | F           | M00055345:811 | CH17COHLV |
| 1089   | 449580  | RTA22200018F.c.03.1.P.Seq | F           | M00042450:810 | CH17COHLV |
| 1090   | 3316    | RTA22200025F.i.02.1.P.Seq | F           | M00055356:36  | CH17COHLV |
| 1091   | 97507   | RTA22200025F.i.22.1.P.Seq | F           | M00055364:51  | CH17COHLV |
| 1092   | 556216  | RTA22200025F.k.07.1.P.Seq | F           | M00055373:410 | CH17COHLV |
| 1093   | 185401  | RTA22200250F.d.22.1.P.Seq | F           | M00027808:710 | CH04MAL   |
| 1094   | 3758    | RTA22200248F.o.08.1.P.Seq | F           | M00027605:55  | CH04MAL   |
| 1095   | 95700   | RTA22200248F.l.15.1.P.Seq | F           | M00027588:16  | CH04MAL   |
| 1096   | 2478    | RTA22200250F.d.12.1.P.Seq | F           | M00027803:810 | CH04MAL   |
| 1097   | 550267  | RTA22200011F.d.14.1.P.Seq | F           | M00056552:210 | CH16COP   |
| 1098   | 185652  | RTA22200250F.c.19.1.P.Seq | F           | M00027786:21  | CH04MAL   |
| 1099   | 55798   | RTA22200250F.a.04.1.P.Seq | F           | M00027757:26  | CH04MAL   |
| 1100   | 5078    | RTA22200011F.a.19.1.P.Seq | F           | M00056529:89  | CH16COP   |
| 1101   | 9784    | RTA22200249F.h.22.1.P.Seq | F           | M00027681:42  | CH04MAL   |
| 1102   | 2245    | RTA22200234F.e.08.1.P.Seq | F           | M00022216:46  | CH03MAH   |
| 1103   | 11606   | RTA22200234F.e.19.1.P.Seq | F           | M00022221:46  | CH03MAH   |
| 1104   | 2245    | RTA22200234F.e.21.1.P.Seq | F           | M00022221:46  | CH03MAH   |
| 1105   | 551172  | RTA22200011F.b.19.1.P.Seq | F           | M00056537:19  | CH16COP   |
| 1106   | 729175  | RTA22200010F.i.01.1.P.Seq | F           | M00056420:47  | CH16COP   |
| 1107   | 6317    | RTA22200224F.e.13.1.P.Seq | F           | M00004971:74  | CH02COH   |
| 1108   | 2478    | RTA22200234F.f.21.1.P.Seq | F           | M00022235:311 | CH03MAH   |
| 1109   | 4727    | RTA22200234F.f.10.1.P.Seq | F           | M00022231:512 | CH03MAH   |
| 1110   | 185598  | RTA22200249F.p.13.1.P.Seq | F           | M00027747:41  | CH04MAL   |
| 1111   | 736349  | RTA22200010F.j.16.1.P.Seq | F           | M00056434:57  | CH16COP   |
| 1112   | 8001    | RTA22200224F.g.15.1.P.Seq | F           | M00005313:22  | CH02COH   |
| 1113   | 189561  | RTA22200010F.i.20.1.P.Seq | F           | M00056425:88  | CH16COP   |
| 1114   | 728131  | RTA22200010F.n.22.1.P.Seq | F           | M00056507:210 | CH16COP   |
| 1115   | 560984  | RTA22200019F.k.07.1.P.Seq | F           | M00054521:64  | CH17COHLV |
| 1116   | 549945  | RTA22200019F.j.03.1.P.Seq | F           | M00054513:112 | CH17COHLV |
| 1117   | 554785  | RTA22200019F.g.24.1.P.Seq | F           | M00054499:511 | CH17COHLV |
| 1118   | 554785  | RTA22200019F.h.01.1.P.Seq | F           | M00054499:511 | CH17COHLV |
| 1119   | 551235  | RTA22200019F.e.14.1.P.Seq | F           | M00043506:89  | CH17COHLV |
| 1120   | 2634    | RTA22200237F.e.18.1.P.Seq | F           | M00022720:39  | CH03MAH   |
| 1121   | 548858  | RTA22200019F.g.06.1.P.Seq | F           | M00054493:110 | CH17COHLV |
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| 1123   | 649259  | RTA22200006F.a.21.2.P.Seq | F           | M00056000:49  | CH15CON   |
| 1124   | 550267  | RTA22200005F.b.15.1.P.Seq | F           | M00055856:67  | CH15CON   |
| 1125   | 7436    | RTA22200237F.b.08.1.P.Seq | F           | M00022697:412 | CH03MAH   |
| 1126   | 451794  | RTA22200005F.c.13.1.P.Seq | F           | M00055866:12  | CH15CON   |
| 1127   | 5744    | RTA22200227F.l.15.1.P.Seq | F           | M00006719:512 | CH02COH   |
| 1128   | 3516    | RTA22200228F.n.13.2.P.Seq | F           | M00006892:69  | CH02COH   |
| 1129   | 730555  | RTA22200014F.j.23.1.P.Seq | F           | M00056997:89  | CH16COP   |
| 1130   | 3085    | RTA22200237F.n.05.1.P.Seq | F           | M00022829:86  | CH03MAH   |
| 1131   | 638854  | RTA22200005F.b.09.1.P.Seq | F           | M00055854:54  | CH15CON   |
| 1132   | 7379    | RTA22200225F.i.06.1.P.Seq | F           | M00005501:79  | CH02COH   |
| 1133   | 185562  | RTA22200248F.i.11.1.P.Seq | F           | M00027571:311 | CH04MAL   |
| 1134   | 452491  | RTA22200005F.a.16.1.P.Seq | F           | M00055849:48  | CH15CON   |

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY |
|--------|---------|---------------------------|-------------|---------------|---------|
| 1135   | 646248  | RTA22200005F.a.14.1.P.Seq | F           | M00055848:86  | CH15CON |
| 1136   | 6056    | RTA22200235F.f.14.1.P.Seq | F           | M00022468:512 | CH03MAH |
| 1137   | 643103  | RTA22200005F.d.12.1.P.Seq | F           | M00055873:211 | CH15CON |
| 1138   | 6923    | RTA22200237F.h.10.1.P.Seq | F           | M00022741:211 | CH03MAH |
| 1139   | 6923    | RTA22200237F.h.16.1.P.Seq | F           | M00022745:37  | CH03MAH |
| 1140   | 901     | RTA22200237F.o.03.1.P.Seq | F           | M00022831:34  | CH03MAH |
| 1141   | 901     | RTA22200237F.n.23.1.P.Seq | F           | M00022831:19  | CH03MAH |
| 1142   | 367     | RTA22200236F.h.18.1.P.Seq | F           | M00022641:310 | CH03MAH |
| 1143   | 4043    | RTA22200228F.l.13.2.P.Seq | F           | M00006873:21  | CH02COH |
| 1144   | 3299    | RTA22200236F.h.19.1.P.Seq | F           | M00022641:56  | CH03MAH |
| 1145   | 11881   | RTA22200238F.e.15.1.P.Seq | F           | M00022899:39  | CH03MAH |
| 1146   | 9113    | RTA22200230F.l.04.1.P.Seq | F           | M00007204:712 | CH02COH |
| 1147   | 185460  | RTA22200243F.p.24.1.P.Seq | F           | M00027165:611 | CH04MAL |
| 1148   | 185716  | RTA22200241F.d.03.1.P.Seq | F           | M00026873:511 | CH04MAL |
| 1149   | 5753    | RTA22200227F.o.22.1.P.Seq | F           | M00006756:68  | CH02COH |
| 1150   | 24939   | RTA22200012F.e.06.1.P.Seq | F           | M00056701:58  | CH16COP |
| 1151   | 649684  | RTA22200007F.a.14.1.P.Seq | F           | M00056140:87  | CH15CON |
| 1152   | 642109  | RTA22200012F.h.03.1.P.Seq | F           | M00056717:34  | CH16COP |
| 1153   | 15035   | RTA22200007F.l.11.1.P.Seq | F           | M00056246:23  | CH15CON |
| 1154   | 649354  | RTA22200007F.a.15.1.P.Seq | F           | M00056140:57  | CH15CON |
| 1155   | 4465    | RTA22200228F.e.19.1.P.Seq | F           | M00006811:412 | CH02COH |
| 1156   | 647952  | RTA22200007F.b.02.1.P.Seq | F           | M00056144:39  | CH15CON |
| 1157   | 455601  | RTA22200005F.p.18.1.P.Seq | F           | M00055990:25  | CH15CON |
| 1158   | 641901  | RTA22200005F.p.07.1.P.Seq | F           | M00055984:32  | CH15CON |
| 1159   | 446878  | RTA22200009F.b.21.2.P.Seq | F           | M00042466:86  | CH16COP |
| 1160   | 7436    | RTA22200232F.h.08.1.P.Seq | F           | M00022058:11  | CH03MAH |
| 1161   | 2245    | RTA22200230F.i.03.1.P.Seq | F           | M00007166:56  | CH02COH |
| 1162   | 3531    | RTA22200227F.o.01.1.P.Seq | F           | M00006746:26  | CH02COH |
| 1163   | 9625    | RTA22200240F.k.21.1.P.Seq | F           | M00023520:77  | CH04MAL |
| 1164   | 727489  | RTA22200012F.l.19.1.P.Seq | F           | M00056754:14  | CH16COP |
| 1165   | 159925  | RTA22200240F.j.14.1.P.Seq | F           | M00023428:43  | CH04MAL |
| 1166   | 645210  | RTA22200012F.g.17.1.P.Seq | F           | M00056715:54  | CH16COP |
| 1167   | 157629  | RTA22200235F.d.24.1.P.Seq | F           | M00022453:84  | CH03MAH |
| 1168   | 8375    | RTA22200231F.l.07.1.P.Seq | F           | M00007982:611 | CH03MAH |
| 1169   | 4319    | RTA22200230F.e.02.1.P.Seq | F           | M00007129:68  | CH02COH |
| 1170   | 4045    | RTA22200231F.n.07.1.P.Seq | F           | M00007992:78  | CH03MAH |
| 1171   | 185642  | RTA22200240F.p.21.1.P.Seq | F           | M00026848:711 | CH04MAL |
| 1172   | 7436    | RTA22200238F.l.11.1.P.Seq | F           | M00022974:410 | CH03MAH |
| 1173   | 3531    | RTA22200227F.n.24.1.P.Seq | F           | M00006746:26  | CH02COH |
| 1174   | 644776  | RTA22200012F.g.21.1.P.Seq | F           | M00056715:58  | CH16COP |
| 1175   | 8354    | RTA22200238F.d.13.1.P.Seq | F           | M00022892:77  | CH03MAH |
| 1176   | 2099    | RTA22200243F.f.05.1.P.Seq | F           | M00027111:84  | CH04MAL |
| 1177   | 449956  | RTA22200011F.l.18.1.P.Seq | F           | M00056624:85  | CH16COP |
| 1178   | 649106  | RTA22200003F.o.09.1.P.Seq | F           | M00055723:55  | CH15CON |
| 1179   | 452414  | RTA22200005F.i.09.1.P.Seq | F           | M00055908:512 | CH15CON |
| 1180   | 732712  | RTA22200011F.k.21.1.P.Seq | F           | M00056616:110 | CH16COP |
| 1181   | 185562  | RTA22200241F.m.01.1.P.Seq | F           | M00026938:64  | CH04MAL |
| 1182   | 3516    | RTA22200225F.i.17.1.P.Seq | F           | M00005485:19  | CH02COH |
| 1183   | 185562  | RTA22200241F.l.24.1.P.Seq | F           | M00026938:64  | CH04MAL |
| 1184   | 185460  | RTA22200241F.a.08.1.P.Seq | F           | M00026854:57  | CH04MAL |
| 1185   | 10947   | RTA22200237F.l.16.1.P.Seq | F           | M00022813:18  | CH03MAH |
| 1186   | 452856  | RTA22200007F.d.13.1.P.Seq | F           | M00056169:66  | CH15CON |
| 1187   | 558767  | RTA22200015F.m.17.1.P.Seq | F           | M00057127:77  | CH16COP |
| 1188   | 15035   | RTA22200008F.e.22.1.P.Seq | F           | M00056438:16  | CH15CON |

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 1189   | 556421  | RTA22200005F.h.23.1.P.Seq | F           | M00055906:612 | CH15CON   |
| 1190   | 7082    | RTA22200235F.o.24.2.P.Seq | F           | M00022565:15  | CH03MAH   |
| 1191   | 452523  | RTA22200013F.j.07.1.P.Seq | F           | M00056868:59  | CH16COP   |
| 1192   | 3242    | RTA22200230F.a.01.1.P.Seq | F           | M00007092:63  | CH02COH   |
| 1193   | 6660    | RTA22200222F.i.24.1.P.Seq | F           | M00003986:712 | CH01COH   |
| 1194   | 547     | RTA22200244F.j.02.1.P.Seq | F           | M00027197:77  | CH04MAL   |
| 1195   | 121213  | RTA22200011F.i.23.1.P.Seq | F           | M00056599:411 | CH16COP   |
| 1196   | 4378    | RTA22200226F.p.15.1.P.Seq | F           | M00005830:410 | CH02COH   |
| 1197   | 185554  | RTA22200244F.m.17.1.P.Seq | F           | M00027217:73  | CH04MAL   |
| 1198   | 185482  | RTA22200241F.d.04.1.P.Seq | F           | M00026873:28  | CH04MAL   |
| 1199   | 185715  | RTA22200240F.l.14.1.P.Seq | F           | M00026805:24  | CH04MAL   |
| 1200   | 66017   | RTA22200243F.d.10.1.P.Seq | F           | M00027097:711 | CH04MAL   |
| 1201   | 403111  | RTA22200007F.j.14.1.P.Seq | F           | M00056226:612 | CH15CON   |
| 1202   | 3224    | RTA22200222F.o.18.1.P.Seq | F           | M00004296:711 | CH01COH   |
| 1203   | 966     | RTA22200238F.k.11.1.P.Seq | F           | M00022961:211 | CH03MAH   |
| 1204   | 3639    | RTA22200235F.j.05.2.P.Seq | F           | M00022509:26  | CH03MAH   |
| 1205   | 5388    | RTA22200243F.k.17.1.P.Seq | F           | M00027139:36  | CH04MAL   |
| 1206   | 3299    | RTA22200238F.b.05.1.P.Seq | F           | M00022872:25  | CH03MAH   |
| 1207   | 23760   | RTA22200241F.n.13.1.P.Seq | F           | M00026949:810 | CH04MAL   |
| 1208   | 729384  | RTA22200012F.n.06.1.P.Seq | F           | M00056765:512 | CH16COP   |
| 1209   | 46559   | RTA22200016F.g.16.1.P.Seq | F           | M00057215:22  | CH16COP   |
| 1210   | 449750  | RTA22200022F.n.05.1.P.Seq | F           | M00054980:32  | CH17COHLV |
| 1211   | 735936  | RTA22200011F.i.02.1.P.Seq | F           | M00056593:55  | CH16COP   |
| 1212   | 607430  | RTA22200005F.o.04.1.P.Seq | F           | M00055971:57  | CH15CON   |
| 1213   | 452856  | RTA22200007F.g.23.1.P.Seq | F           | M00056205:41  | CH15CON   |
| 1214   | 557903  | RTA22200016F.g.07.1.P.Seq | F           | M00057211:67  | CH16COP   |
| 1215   | 453112  | RTA22200001F.g.01.1.P.Seq | F           | M00042700:43  | CH15CON   |
| 1216   | 645900  | RTA22200006F.i.24.2.P.Seq | F           | M00056067:48  | CH15CON   |
| 1217   | 415114  | RTA22200002F.m.20.1.P.Seq | F           | M00055542:31  | CH15CON   |
| 1218   | 418763  | RTA22200004F.l.11.1.P.Seq | F           | M00055811:18  | CH15CON   |
| 1219   | 2245    | RTA22200230F.a.12.1.P.Seq | F           | M00007097:24  | CH02COH   |
| 1220   | 403668  | RTA22200012F.o.18.1.P.Seq | F           | M00056777:33  | CH16COP   |
| 1221   | 15427   | RTA22200020F.m.08.1.P.Seq | F           | M00054677:42  | CH17COHLV |
| 1222   | 555714  | RTA22200020F.n.23.1.P.Seq | F           | M00054691:55  | CH17COHLV |
| 1223   | 555830  | RTA22200022F.d.19.1.P.Seq | F           | M00054899:67  | CH17COHLV |
| 1224   | 4620    | RTA22200231F.e.13.1.P.Seq | F           | M00007951:15  | CH03MAH   |
| 1225   | 171511  | RTA22200012F.p.21.1.P.Seq | F           | M00056789:34  | CH16COP   |
| 1226   | 451401  | RTA22200008F.h.08.1.P.Seq | F           | M00056475:312 | CH15CON   |
| 1227   | 447501  | RTA22200002F.e.01.1.P.Seq | F           | M00055453:51  | CH15CON   |
| 1228   | 460445  | RTA22200022F.p.12.1.P.Seq | F           | M00055005:28  | CH17COHLV |
| 1229   | 375814  | RTA22200004F.k.20.1.P.Seq | F           | M00055806:59  | CH15CON   |
| 1230   | 449356  | RTA22200026F.d.19.1.P.Seq | F           | M00055423:78  | CH17COHLV |
| 1231   | 468736  | RTA22200022F.i.10.1.P.Seq | F           | M00054943:33  | CH17COHLV |
| 1232   | 548858  | RTA22200023F.a.04.1.P.Seq | F           | M00055011:54  | CH17COHLV |
| 1233   | 3693    | RTA22200240F.g.16.1.P.Seq | F           | M00023393:32  | CH04MAL   |
| 1234   | 642973  | RTA22200005F.k.19.1.P.Seq | F           | M00055931:13  | CH15CON   |
| 1235   | 561180  | RTA22200012F.n.04.1.P.Seq | F           | M00056765:110 | CH16COP   |
| 1236   | 453708  | RTA22200020F.p.07.1.P.Seq | F           | M00054707:28  | CH17COHLV |
| 1237   | 645305  | RTA22200001F.p.17.1.P.Seq | F           | M00054917:69  | CH15CON   |
| 1238   | 463487  | RTA22200007F.e.12.1.P.Seq | F           | M00056184:48  | CH15CON   |
| 1239   | 11131   | RTA22200230F.b.14.1.P.Seq | F           | M00007105:312 | CH02COH   |
| 1240   | 561807  | RTA22200020F.k.18.1.P.Seq | F           | M00054660:65  | CH17COHLV |
| 1241   | 452800  | RTA22200023F.n.03.1.P.Seq | F           | M00055104:212 | CH17COHLV |
| 1242   | 372960  | RTA22200012F.p.07.1.P.Seq | F           | M00056782:26  | CH16COP   |

Table 1



Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 1244   | 730759  | RTA22200011F.n.19.1.P.Seq | F           | M00056643:76  | CH16COP   |
| 1245   | 9113    | RTA22200226F.i.12.1.P.Seq | F           | M00005704:410 | CH02COH   |
| 1246   | 630259  | RTA22200004F.k.14.1.P.Seq | F           | M00055805:410 | CH15CON   |
| 1247   | 3516    | RTA22200226F.o.20.1.P.Seq | F           | M00005819:211 | CH02COH   |
| 1248   | 447494  | RTA22200004F.j.14.1.P.Seq | F           | M00055802:72  | CH15CON   |
| 1249   | 554500  | RTA22200019F.n.10.1.P.Seq | F           | M00054547:59  | CH17COHLV |
| 1250   | 639662  | RTA22200001F.p.19.1.P.Seq | F           | M00054917:412 | CH15CON   |
| 1251   | 421     | RTA22200009F.o.23.1.P.Seq | F           | M00042869:56  | CH16COP   |
| 1252   | 736014  | RTA22200016F.o.19.1.P.Seq | F           | M00057277:39  | CH16COP   |
| 1253   | 643061  | RTA22200006F.m.24.2.P.Seq | F           | M00056099:811 | CH15CON   |
| 1254   | 9113    | RTA22200229F.m.02.1.P.Seq | F           | M00007035:56  | CH02COH   |
| 1255   | 650856  | RTA22200007F.i.19.2.P.Seq | F           | M00056221:55  | CH15CON   |
| 1256   | 476223  | RTA22200009F.g.09.1.P.Seq | F           | M00042792:64  | CH16COP   |
| 1257   | 737088  | RTA22200011F.f.01.1.P.Seq | F           | M00056564:59  | CH16COP   |
| 1258   | 449512  | RTA22200022F.p.03.1.P.Seq | F           | M00055000:64  | CH17COHLV |
| 1259   | 449457  | RTA22200023F.m.21.1.P.Seq | F           | M00055100:48  | CH17COHLV |
| 1260   | 521901  | RTA22200022F.l.07.1.P.Seq | F           | M00054964:811 | CH17COHLV |
| 1261   | 175799  | RTA22200001F.f.12.1.P.Seq | F           | M00042695:85  | CH15CON   |
| 1262   | 550108  | RTA22200012F.p.01.1.P.Seq | F           | M00056779:810 | CH16COP   |
| 1263   | 203605  | RTA22200003F.e.03.1.P.Seq | F           | M00055618:16  | CH15CON   |
| 1264   | 450429  | RTA22200013F.b.10.1.P.Seq | F           | M00056805:29  | CH16COP   |
| 1265   | 2478    | RTA22200238F.j.18.1.P.Seq | F           | M00022956:29  | CH03MAH   |
| 1266   | 644099  | RTA22200004F.b.06.1.P.Seq | F           | M00055743:312 | CH15CON   |
| 1267   | 552614  | RTA22200008F.e.13.1.P.Seq | F           | M00056344:73  | CH15CON   |
| 1268   | 452523  | RTA22200007F.g.15.1.P.Seq | F           | M00056203:810 | CH15CON   |
| 1269   | 446789  | RTA22200004F.l.01.1.P.Seq | F           | M00055807:710 | CH15CON   |
| 1270   | 515631  | RTA22200010F.c.15.1.P.Seq | F           | M00056369:412 | CH16COP   |
| 1271   | 452523  | RTA22200009F.h.13.1.P.Seq | F           | M00042805:88  | CH16COP   |
| 1272   | 640116  | RTA22200007F.l.23.2.P.Seq | F           | M00056250:61  | CH15CON   |
| 1273   | 9113    | RTA22200230F.a.14.1.P.Seq | F           | M00007097:47  | CH02COH   |
| 1274   | 562221  | RTA22200006F.b.03.2.P.Seq | F           | M00056001:59  | CH15CON   |
| 1275   | 455972  | RTA22200012F.i.18.1.P.Seq | F           | M00056729:44  | CH16COP   |
| 1276   | 449137  | RTA22200009F.e.12.1.P.Seq | F           | M00042771:13  | CH16COP   |
| 1277   | 5078    | RTA22200013F.p.15.1.P.Seq | F           | M00056914:29  | CH16COP   |
| 1278   | 5078    | RTA22200013F.g.09.1.P.Seq | F           | M00056844:57  | CH16COP   |
| 1279   | 4016    | RTA22200228F.d.20.1.P.Seq | F           | M00006807:712 | CH02COH   |
| 1280   | 403111  | RTA22200005F.m.11.1.P.Seq | F           | M00055946:77  | CH15CON   |
| 1281   | 562292  | RTA22200023F.g.07.1.P.Seq | F           | M00055053:23  | CH17COHLV |
| 1282   | 403111  | RTA22200007F.j.14.2.P.Seq | F           | M00056226:612 | CH15CON   |
| 1283   | 403111  | RTA22200007F.m.22.1.P.Seq | F           | M00056262:28  | CH15CON   |
| 1284   | 500959  | RTA22200006F.i.23.2.P.Seq | F           | M00056066:87  | CH15CON   |
| 1285   | 763     | RTA22200231F.g.24.1.P.Seq | F           | M00007965:33  | CH03MAH   |
| 1286   | 763     | RTA22200231F.h.01.1.P.Seq | F           | M00007965:33  | CH03MAH   |
| 1287   | 500959  | RTA22200008F.f.19.1.P.Seq | F           | M00056456:19  | CH15CON   |
| 1288   | 452071  | RTA22200001F.g.03.1.P.Seq | F           | M00042700:85  | CH15CON   |
| 1289   | 468672  | RTA22200026F.e.16.1.P.Seq | F           | M00055472:62  | CH17COHLV |
| 1290   | 455492  | RTA22200001F.j.08.1.P.Seq | F           | M00042738:410 | CH15CON   |
| 1291   | 639667  | RTA22200015F.f.11.1.P.Seq | F           | M00057079:59  | CH16COP   |
| 1292   | 549829  | RTA22200024F.e.11.1.P.Seq | F           | M00055181:51  | CH17COHLV |
| 1293   | 553158  | RTA22200021F.f.02.3.P.Seq | F           | M00054752:17  | CH17COHLV |
| 1294   | 561485  | RTA22200026F.d.14.1.P.Seq | F           | M00055421:311 | CH17COHLV |
| 1295   | 639352  | RTA22200002F.l.04.1.P.Seq | F           | M00055528:66  | CH15CON   |
| 1296   | 451401  | RTA22200018F.h.16.1.P.Seq | F           | M00043317:64  | CH17COHLV |

Table 1

Table 1

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| 1299   | 218416  | RTA22200004F.b.09.1.P.Seq  | F           | M00055744:38  | CH15CON   |
| 1300   | 447501  | RTA22200002F.d.24.1.P.Seq  | F           | M00055453:51  | CH15CON   |
| 1301   | 558371  | RTA222000024F.m.15.1.P.Seq | F           | M00055242:44  | CH17COHLV |
| 1302   | 561794  | RTA22200015F.f.14.1.P.Seq  | F           | M00057080:32  | CH16COP   |
| 1303   | 645065  | RTA22200004F.b.15.1.P.Seq  | F           | M00055744:78  | CH15CON   |
| 1304   | 451269  | RTA22200001F.b.05.1.P.Seq  | F           | M00042534:27  | CH15CON   |
| 1305   | 401553  | RTA22200004F.e.16.1.P.Seq  | F           | M00055771:67  | CH15CON   |
| 1306   | 555276  | RTA22200022F.n.12.1.P.Seq  | F           | M00054984:212 | CH17COHLV |
| 1307   | 551617  | RTA22200021F.f.21.3.P.Seq  | F           | M00054762:67  | CH17COHLV |
| 1308   | 463480  | RTA22200001F.i.08.1.P.Seq  | F           | M00042727:812 | CH15CON   |
| 1309   | 549178  | RTA22200022F.n.07.1.P.Seq  | F           | M00054981:511 | CH17COHLV |
| 1310   | 374450  | RTA22200003F.d.02.1.P.Seq  | F           | M00055601:49  | CH15CON   |
| 1311   | 562835  | RTA22200009F.o.07.1.P.Seq  | F           | M00042864:55  | CH16COP   |
| 1312   | 730555  | RTA22200014F.j.23.2.P.Seq  | F           | M00056997:89  | CH16COP   |
| 1313   | 732978  | RTA22200015F.f.09.1.P.Seq  | F           | M00057078:312 | CH16COP   |
| 1314   | 1609    | RTA22200001F.k.16.1.P.Seq  | F           | M00042883:612 | CH15CON   |
| 1315   | 18591   | RTA22200015F.c.09.1.P.Seq  | F           | M00057058:69  | CH16COP   |
| 1316   | 553158  | RTA22200021F.f.12.3.P.Seq  | F           | M00054759:28  | CH17COHLV |
| 1317   | 470602  | RTA22200024F.i.03.1.P.Seq  | F           | M00055206:84  | CH17COHLV |
| 1318   | 639662  | RTA22200003F.d.14.1.P.Seq  | F           | M00055609:612 | CH15CON   |
| 1319   | 644721  | RTA22200004F.p.13.1.P.Seq  | F           | M00055839:69  | CH15CON   |
| 1320   | 453202  | RTA22200025F.n.08.2.P.Seq  | F           | M00055390:48  | CH17COHLV |
| 1321   | 554655  | RTA22200015F.e.19.1.P.Seq  | F           | M00057073:15  | CH16COP   |
| 1322   | 641988  | RTA22200002F.c.20.1.P.Seq  | F           | M00055446:26  | CH15CON   |
| 1323   | 453112  | RTA22200001F.f.24.1.P.Seq  | F           | M00042700:43  | CH15CON   |
| 1324   | 550694  | RTA22200020F.c.09.1.P.Seq  | F           | M00054583:65  | CH17COHLV |
| 1325   | 649106  | RTA22200004F.h.02.1.P.Seq  | F           | M00055788:13  | CH15CON   |
| 1326   | 638973  | RTA22200002F.g.14.1.P.Seq  | F           | M00055494:39  | CH15CON   |
| 1327   | 549911  | RTA22200024F.h.16.1.P.Seq  | F           | M00055203:82  | CH17COHLV |
| 1328   | 648774  | RTA22200013F.o.21.1.P.Seq  | F           | M00056909:511 | CH16COP   |
| 1329   | 549911  | RTA22200024F.g.03.1.P.Seq  | F           | M00055194:35  | CH17COHLV |
| 1330   | 639662  | RTA22200003F.a.10.1.P.Seq  | F           | M00055572:212 | CH15CON   |
| 1331   | 560455  | RTA22200024F.l.03.1.P.Seq  | F           | M00055231:410 | CH17COHLV |
| 1332   | 735805  | RTA22200016F.d.23.1.P.Seq  | F           | M00057191:13  | CH16COP   |
| 1333   | 732712  | RTA22200014F.p.03.2.P.Seq  | F           | M00057029:16  | CH16COP   |
| 1334   | 446663  | RTA22200026F.f.10.1.P.Seq  | F           | M00055479:72  | CH17COHLV |
| 1335   | 226324  | RTA22200024F.e.17.1.P.Seq  | F           | M00055182:37  | CH17COHLV |
| 1336   | 453016  | RTA22200013F.m.14.1.P.Seq  | F           | M00056893:86  | CH16COP   |
| 1337   | 550998  | RTA22200016F.d.20.1.P.Seq  | F           | M00057189:75  | CH16COP   |
| 1338   | 452414  | RTA22200008F.d.21.1.P.Seq  | F           | M00056331:41  | CH15CON   |
| 1339   | 129535  | RTA22200003F.a.13.1.P.Seq  | F           | M00055572:63  | CH15CON   |
| 1340   | 447089  | RTA22200001F.c.04.1.P.Seq  | F           | M00042543:82  | CH15CON   |
| 1341   | 447850  | RTA22200021F.c.07.2.P.Seq  | F           | M00054732:53  | CH17COHLV |
| 1342   | 556216  | RTA22200021F.l.05.3.P.Seq  | F           | M00054823:87  | CH17COHLV |
| 1343   | 452523  | RTA22200003F.d.13.1.P.Seq  | F           | M00055609:73  | CH15CON   |
| 1344   | 44424   | RTA22200015F.i.23.1.P.Seq  | F           | M00057103:89  | CH16COP   |
| 1345   | 648872  | RTA22200004F.m.05.1.P.Seq  | F           | M00055817:48  | CH15CON   |
| 1346   | 451636  | RTA22200018F.e.12.1.P.Seq  | F           | M00043300:811 | CH17COHLV |
| 1347   | 5078    | RTA22200024F.a.14.1.P.Seq  | F           | M00055145:67  | CH17COHLV |
| 1348   | 403111  | RTA22200002F.g.21.1.P.Seq  | F           | M00055495:52  | CH15CON   |
| 1349   | 648959  | RTA22200002F.d.02.1.P.Seq  | F           | M00055448:48  | CH15CON   |
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Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 1353   | 562221  | RTA22200025F.a.22.1.P.Seq | F           | M00055273:35  | CH17COHLV |
| 1354   | 450959  | RTA22200018F.f.14.1.P.Seq | F           | M00043306:27  | CH17COHLV |
| 1355   | 452833  | RTA22200018F.d.24.1.P.Seq | F           | M00042520:69  | CH17COHLV |
| 1356   | 550195  | RTA22200020F.e.19.1.P.Seq | F           | M00054602:34  | CH17COHLV |
| 1357   | 448927  | RTA22200018F.l.10.1.P.Seq | F           | M00043349:38  | CH17COHLV |
| 1358   | 551514  | RTA22200020F.h.08.1.P.Seq | F           | M00054629:59  | CH17COHLV |
| 1359   | 549829  | RTA22200020F.f.14.1.P.Seq | F           | M00054609:86  | CH17COHLV |
| 1360   | 551514  | RTA22200025F.i.12.1.P.Seq | F           | M00055327:88  | CH17COHLV |
| 1361   | 561485  | RTA22200025F.i.07.1.P.Seq | F           | M00055358:31  | CH17COHLV |
| 1362   | 453846  | RTA22200025F.k.20.1.P.Seq | F           | M00055376:21  | CH17COHLV |
| 1363   | 69863   | RTA22200249F.j.23.1.P.Seq | F           | M00027699:42  | CH04MAL   |
| 1364   | 727181  | RTA22200011F.d.23.1.P.Seq | F           | M00056555:69  | CH16COP   |
| 1365   | 454050  | RTA22200011F.c.06.1.P.Seq | F           | M00056541:18  | CH16COP   |
| 1366   | 725994  | RTA22200011F.b.07.1.P.Seq | F           | M00056534:411 | CH16COP   |
| 1367   | 1495    | RTA22200234F.j.11.1.P.Seq | F           | M00022273:19  | CH03MAH   |
| 1368   | 5665    | RTA22200233F.n.01.1.P.Seq | F           | M00021654:14  | CH03MAH   |
| 1369   | 5665    | RTA22200233F.m.24.1.P.Seq | F           | M00021654:14  | CH03MAH   |
| 1370   | 646146  | RTA22200010F.i.03.1.P.Seq | F           | M00056421:612 | CH16COP   |
| 1371   | 8371    | RTA22200224F.e.18.1.P.Seq | F           | M00005000:88  | CH02COH   |
| 1372   | 73812   | RTA22200250F.e.14.1.P.Seq | F           | M00027817:211 | CH04MAL   |
| 1373   | 4242    | RTA22200233F.k.20.1.P.Seq | F           | M00021620:610 | CH03MAH   |
| 1374   | 5482    | RTA22200225F.a.01.1.P.Seq | F           | M00005411:37  | CH02COH   |
| 1375   | 5474    | RTA22200224F.p.13.1.P.Seq | F           | M00005407:512 | CH02COH   |
| 1376   | 5448    | RTA22200225F.a.13.1.P.Seq | F           | M00005413:63  | CH02COH   |
| 1377   | 7607    | RTA22200225F.c.10.1.P.Seq | F           | M00005438:16  | CH02COH   |
| 1378   | 555928  | RTA22200010F.o.23.1.P.Seq | F           | M00056514:71  | CH16COP   |
| 1379   | 4046    | RTA22200224F.j.04.1.P.Seq | F           | M00005359:16  | CH02COH   |
| 1380   | 554080  | RTA22200019F.f.02.1.P.Seq | F           | M00043508:18  | CH17COHLV |
| 1381   | 451092  | RTA22200018F.p.13.1.P.Seq | F           | M00043377:33  | CH17COHLV |
| 1382   | 551380  | RTA22200018F.p.22.1.P.Seq | F           | M00043381:510 | CH17COHLV |
| 1383   | 546642  | RTA22200014F.o.20.1.P.Seq | F           | M00057029:312 | CH16COP   |
| 1384   | 1764    | RTA22200228F.c.06.1.P.Seq | F           | M00006789:111 | CH02COH   |
| 1385   | 650773  | RTA22200005F.c.05.1.P.Seq | F           | M00055864:511 | CH15CON   |
| 1386   | 644205  | RTA22200005F.d.20.1.P.Seq | F           | M00055874:26  | CH15CON   |
| 1387   | 185718  | RTA22200242F.m.05.1.P.Seq | F           | M00027051:17  | CH04MAL   |
| 1388   | 5538    | RTA22200227F.k.23.1.P.Seq | F           | M00006712:62  | CH02COH   |
| 1389   | 7546    | RTA22200222F.e.06.1.P.Seq | F           | M00001625:28  | CH01COH   |
| 1390   | 727789  | RTA22200014F.b.21.1.P.Seq | F           | M00056939:68  | CH16COP   |
| 1391   | 3837    | RTA22200232F.m.13.1.P.Seq | F           | M00022137:74  | CH03MAH   |
| 1392   | 380477  | RTA22200007F.d.03.1.P.Seq | F           | M00056162:46  | CH15CON   |
| 1393   | 3299    | RTA22200238F.a.22.1.P.Seq | F           | M00022861:210 | CH03MAH   |
| 1394   | 448853  | RTA22200009F.b.12.2.P.Seq | F           | M00042463:69  | CH16COP   |
| 1395   | 736701  | RTA22200012F.h.21.1.P.Seq | F           | M00056723:410 | CH16COP   |
| 1396   | 735296  | RTA22200013F.k.05.1.P.Seq | F           | M00056873:56  | CH16COP   |
| 1397   | 13666   | RTA22200241F.f.02.1.P.Seq | F           | M00026893:11  | CH04MAL   |
| 1398   | 732712  | RTA22200013F.l.11.1.P.Seq | F           | M00056883:17  | CH16COP   |
| 1399   | 3765    | RTA22200227F.o.19.1.P.Seq | F           | M00006755:14  | CH02COH   |
| 1400   | 185596  | RTA22200243F.j.05.1.P.Seq | F           | M00027134:72  | CH04MAL   |
| 1401   | 1943    | RTA22200233F.e.19.1.P.Seq | F           | M00008065:25  | CH03MAH   |
| 1402   | 448193  | RTA22200009F.d.18.2.P.Seq | F           | M00042764:24  | CH16COP   |
| 1403   | 1793    | RTA22200235F.d.08.1.P.Seq | F           | M00022444:311 | CH03MAH   |
| 1404   | 2475    | RTA22200243F.c.22.1.P.Seq | F           | M00027096:77  | CH04MAL   |

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 1407   | 641884  | RTA22200003F.m.17.1.P.Seq | F           | M00055705:77  | CH15CON   |
| 1408   | 463487  | RTA22200014F.f.09.2.P.Seq | F           | M00056961:28  | CH16COP   |
| 1409   | 5156    | RTA22200225F.m.12.1.P.Seq | F           | M00005516:86  | CH02COH   |
| 1410   | 728408  | RTA22200012F.h.05.1.P.Seq | F           | M00056718:72  | CH16COP   |
| 1411   | 73812   | RTA22200242F.m.20.1.P.Seq | F           | M00027054:23  | CH04MAL   |
| 1412   | 1662    | RTA22200231F.n.18.1.P.Seq | F           | M00007994:15  | CH03MAH   |
| 1413   | 736556  | RTA22200012F.c.09.1.P.Seq | F           | M00056683:29  | CH16COP   |
| 1414   | 5240    | RTA22200230F.i.16.1.P.Seq | F           | M00007172:33  | CH02COH   |
| 1415   | 6184    | RTA22200230F.a.11.1.P.Seq | F           | M00007096:82  | CH02COH   |
| 1416   | 446404  | RTA22200007F.m.11.1.P.Seq | F           | M00056253:86  | CH15CON   |
| 1417   | 646825  | RTA22200005F.m.17.1.P.Seq | F           | M00055951:32  | CH15CON   |
| 1418   | 734929  | RTA22200011F.i.01.1.P.Seq | F           | M00056592:47  | CH16COP   |
| 1419   | 648851  | RTA22200007F.e.21.1.P.Seq | F           | M00056185:13  | CH15CON   |
| 1420   | 640135  | RTA22200014F.o.14.2.P.Seq | F           | M00057027:76  | CH16COP   |
| 1421   | 7443    | RTA22200234F.p.21.1.P.Seq | F           | M00022411:712 | CH03MAH   |
| 1422   | 454050  | RTA22200007F.h.03.1.P.Seq | F           | M00056206:56  | CH15CON   |
| 1423   | 3765    | RTA22200226F.l.11.1.P.Seq | F           | M00005766:610 | CH02COH   |
| 1424   | 648320  | RTA22200003F.p.03.1.P.Seq | F           | M00055726:710 | CH15CON   |
| 1425   | 451269  | RTA22200005F.g.17.1.P.Seq | F           | M00055889:812 | CH15CON   |
| 1426   | 535208  | RTA22200005F.h.10.1.P.Seq | F           | M00055896:611 | CH15CON   |
| 1427   | 728115  | RTA22200012F.i.04.1.P.Seq | F           | M00056724:511 | CH16COP   |
| 1428   | 5240    | RTA22200228F.b.08.1.P.Seq | F           | M00006783:67  | CH02COH   |
| 1429   | 909     | RTA22200233F.d.12.1.P.Seq | F           | M00008043:211 | CH03MAH   |
| 1430   | 447697  | RTA22200001F.m.18.1.P.Seq | F           | M00042905:611 | CH15CON   |
| 1431   | 447737  | RTA22200005F.k.16.1.P.Seq | F           | M00055930:28  | CH15CON   |
| 1432   | 651100  | RTA22200010F.d.03.1.P.Seq | F           | M00056371:612 | CH16COP   |
| 1433   | 735477  | RTA22200010F.d.20.1.P.Seq | F           | M00056383:310 | CH16COP   |
| 1434   | 3774    | RTA22200230F.c.04.1.P.Seq | F           | M00007110:63  | CH02COH   |
| 1435   | 646146  | RTA22200006F.a.09.2.P.Seq | F           | M00055997:711 | CH15CON   |
| 1436   | 643931  | RTA22200005F.j.20.1.P.Seq | F           | M00055921:211 | CH15CON   |
| 1437   | 463487  | RTA22200013F.h.14.1.P.Seq | F           | M00056857:39  | CH16COP   |
| 1438   | 650097  | RTA22200016F.h.08.1.P.Seq | F           | M00057218:31  | CH16COP   |
| 1439   | 554469  | RTA22200012F.o.20.1.P.Seq | F           | M00056777:22  | CH16COP   |
| 1440   | 476223  | RTA22200010F.a.21.1.P.Seq | F           | M00056356:64  | CH16COP   |
| 1441   | 8738    | RTA22200231F.c.10.1.P.Seq | F           | M00007939:13  | CH03MAH   |
| 1442   | 403978  | RTA22200008F.e.10.1.P.Seq | F           | M00056342:73  | CH15CON   |
| 1443   | 185539  | RTA22200240F.f.19.1.P.Seq | F           | M00023377:39  | CH04MAL   |
| 1444   | 451811  | RTA22200001F.p.04.1.P.Seq | F           | M00054913:73  | CH15CON   |
| 1445   | 140731  | RTA22200015F.n.18.1.P.Seq | F           | M00057133:61  | CH16COP   |
| 1446   | 734582  | RTA22200013F.c.12.1.P.Seq | F           | M00056816:110 | CH16COP   |
| 1447   | 463487  | RTA22200001F.e.05.1.P.Seq | F           | M00042565:83  | CH15CON   |
| 1448   | 558719  | RTA22200004F.d.17.1.P.Seq | F           | M00055766:83  | CH15CON   |
| 1449   | 21669   | RTA22200023F.j.14.1.P.Seq | F           | M00055073:812 | CH17COHLV |
| 1450   | 470462  | RTA22200006F.b.13.2.P.Seq | F           | M00056005:55  | CH15CON   |
| 1451   | 3316    | RTA22200022F.i.09.1.P.Seq | F           | M00054943:34  | CH17COHLV |
| 1452   | 553728  | RTA22200021F.e.07.3.P.Seq | F           | M00054747:61  | CH17COHLV |
| 1453   | 736014  | RTA22200016F.p.01.1.P.Seq | F           | M00057279:72  | CH16COP   |
| 1454   | 237288  | RTA22200002F.m.12.1.P.Seq | F           | M00055538:811 | CH15CON   |
| 1455   | 11141   | RTA22200226F.m.20.1.P.Seq | F           | M00005782:210 | CH02COH   |
| 1456   | 556421  | RTA22200022F.k.11.1.P.Seq | F           | M00054957:22  | CH17COHLV |
| 1457   | 549435  | RTA22200006F.h.16.2.P.Seq | F           | M00056055:43  | CH15CON   |
| 1458   | 448927  | RTA22200009F.g.08.1.P.Seq | F           | M00042792:710 | CH16COP   |

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 1460   | 552614  | RTA22200020F.m.20.1.P.Seq | F           | M00054680:56  | CH17COHLV |
| 1461   | 470602  | RTA22200004F.l.04.1.P.Seq | F           | M00055807:34  | CH15CON   |
| 1462   | 557039  | RTA22200022F.o.03.1.P.Seq | F           | M00054988:72  | CH17COHLV |
| 1463   | 549864  | RTA22200022F.k.06.1.P.Seq | F           | M00054954:33  | CH17COHLV |
| 1464   | 449836  | RTA22200017F.a.23.1.P.Seq | F           | M00057301:812 | CH16COP   |
| 1465   | 554812  | RTA22200023F.m.06.1.P.Seq | F           | M00055094:89  | CH17COHLV |
| 1466   | 3316    | RTA22200021F.l.17.3.P.Seq | F           | M00054827:81  | CH17COHLV |
| 1467   | 649852  | RTA22200003F.l.09.1.P.Seq | F           | M00055689:712 | CH15CON   |
| 1468   | 453592  | RTA22200001F.g.17.1.P.Seq | F           | M00042705:42  | CH15CON   |
| 1469   | 455096  | RTA22200026F.g.02.1.P.Seq | F           | M00055482:11  | CH17COHLV |
| 1470   | 446199  | RTA22200009F.n.08.1.P.Seq | F           | M00042855:29  | CH16COP   |
| 1471   | 558427  | RTA22200024F.m.11.1.P.Seq | F           | M00055242:56  | CH17COHLV |
| 1472   | 450255  | RTA22200021F.j.13.3.P.Seq | F           | M00054810:82  | CH17COHLV |
| 1473   | 452026  | RTA22200003F.l.10.1.P.Seq | F           | M00055689:62  | CH15CON   |
| 1474   | 374971  | RTA22200024F.p.11.1.P.Seq | F           | M00055260:612 | CH17COHLV |
| 1475   | 446404  | RTA22200003F.l.04.1.P.Seq | F           | M00055686:511 | CH15CON   |
| 1476   | 549591  | RTA22200025F.p.19.2.P.Seq | F           | M00055404:37  | CH17COHLV |
| 1477   | 640135  | RTA22200014F.o.14.3.P.Seq | F           | M00057027:76  | CH16COP   |
| 1478   | 646248  | RTA22200016F.k.06.1.P.Seq | F           | M00057239:78  | CH16COP   |
| 1479   | 639705  | RTA22200004F.e.05.1.P.Seq | F           | M00055770:71  | CH15CON   |
| 1480   | 483084  | RTA22200004F.m.03.1.P.Seq | F           | M00055817:61  | CH15CON   |
| 1481   | 464029  | RTA22200026F.b.04.1.P.Seq | F           | M00055408:63  | CH17COHLV |
| 1482   | 428005  | RTA22200021F.c.03.2.P.Seq | F           | M00054731:312 | CH17COHLV |
| 1483   | 91178   | RTA22200024F.o.02.1.P.Seq | F           | M00055252:32  | CH17COHLV |
| 1484   | 550571  | RTA22200024F.k.21.1.P.Seq | F           | M00055227:57  | CH17COHLV |
| 1485   | 735028  | RTA22200015F.e.10.1.P.Seq | F           | M00057070:28  | CH16COP   |
| 1486   | 559409  | RTA22200021F.m.17.2.P.Seq | F           | M00054839:66  | CH17COHLV |
| 1487   | 551172  | RTA22200021F.m.09.2.P.Seq | F           | M00054836:25  | CH17COHLV |
| 1488   | 648872  | RTA22200002F.g.23.1.P.Seq | F           | M00055496:69  | CH15CON   |
| 1489   | 446404  | RTA22200001F.l.03.1.P.Seq | F           | M00042887:47  | CH15CON   |
| 1490   | 734063  | RTA22200016F.j.24.1.P.Seq | F           | M00057237:211 | CH16COP   |
| 1491   | 467991  | RTA22200008F.c.22.1.P.Seq | F           | M00056320:82  | CH15CON   |
| 1492   | 454050  | RTA22200008F.d.06.1.P.Seq | F           | M00056323:312 | CH15CON   |
| 1493   | 734646  | RTA22200015F.j.06.1.P.Seq | F           | M00057104:68  | CH16COP   |
| 1494   | 450192  | RTA22200018F.n.06.1.P.Seq | F           | M00043361:45  | CH17COHLV |
| 1495   | 403978  | RTA22200018F.f.01.1.P.Seq | F           | M00043304:35  | CH17COHLV |
| 1496   | 734209  | RTA22200016F.c.16.1.P.Seq | F           | M00057174:36  | CH16COP   |
| 1497   | 14805   | RTA22200021F.o.12.2.P.Seq | F           | M00054856:12  | CH17COHLV |
| 1498   | 230995  | RTA22200020F.f.01.1.P.Seq | F           | M00054604:49  | CH17COHLV |
| 1499   | 120049  | RTA22200020F.e.18.1.P.Seq | F           | M00054601:58  | CH17COHLV |
| 1500   | 642142  | RTA22200004F.f.16.1.P.Seq | F           | M00055780:27  | CH15CON   |
| 1501   | 403978  | RTA22200018F.e.24.1.P.Seq | F           | M00043304:35  | CH17COHLV |
| 1502   | 386543  | RTA22200018F.g.02.1.P.Seq | F           | M00043309:87  | CH17COHLV |
| 1503   | 379105  | RTA22200018F.a.14.1.P.Seq | F           | M00042355:72  | CH17COHLV |
| 1504   | 450255  | RTA22200018F.c.16.1.P.Seq | F           | M00042455:411 | CH17COHLV |
| 1505   | 730143  | RTA22200011F.a.03.1.P.Seq | F           | M00056526:511 | CH16COP   |
| 1506   | 734209  | RTA22200010F.m.02.1.P.Seq | F           | M00056496:11  | CH16COP   |
| 1507   | 401553  | RTA22200010F.m.16.1.P.Seq | F           | M00056501:87  | CH16COP   |
| 1508   | 72979   | RTA22200019F.a.15.1.P.Seq | F           | M00043388:39  | CH17COHLV |
| 1509   | 726307  | RTA22200010F.o.16.1.P.Seq | F           | M00056512:312 | CH16COP   |
| 1510   | 230995  | RTA22200019F.b.14.1.P.Seq | F           | M00043397:29  | CH17COHLV |
| 1511   | 3524    | RTA22200227F.f.19.1.P.Seq | F           | M00006650:13  | CH02COH   |
| 1512   | 8112    | RTA22200237F.m.13.1.P.Seq | F           | M00022823:43  | CH03MAH   |



Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 1514   | 447326  | RTA22200005F.c.22.1.P.Seq | F           | M00055868:69  | CH15CON   |
| 1515   | 2676    | RTA22200227F.k.01.1.P.Seq | F           | M00006695:88  | CH02COH   |
| 1516   | 736701  | RTA22200014F.e.11.1.P.Seq | F           | M00056955:79  | CH16COP   |
| 1517   | 736701  | RTA22200014F.e.11.2.P.Seq | F           | M00056955:79  | CH16COP   |
| 1518   | 8371    | RTA22200229F.a.07.1.P.Seq | F           | M00006921:88  | CH02COH   |
| 1519   | 8336    | RTA22200235F.f.24.1.P.Seq | F           | M00022470:71  | CH03MAH   |
| 1520   | 185542  | RTA22200248F.h.05.1.P.Seq | F           | M00027564:43  | CH04MAL   |
| 1521   | 448046  | RTA22200014F.d.13.1.P.Seq | F           | M00056951:69  | CH16COP   |
| 1522   | 185422  | RTA22200242F.j.15.1.P.Seq | F           | M00027034:411 | CH04MAL   |
| 1523   | 650448  | RTA22200005F.c.17.1.P.Seq | F           | M00055868:66  | CH15CON   |
| 1524   | 5753    | RTA22200227F.n.02.1.P.Seq | F           | M00006737:111 | CH02COH   |
| 1525   | 8001    | RTA22200222F.a.01.1.P.Seq | F           | M00001340:51  | CH01COH   |
| 1526   | 1644    | RTA22200240F.j.17.1.P.Seq | F           | M00023430:410 | CH04MAL   |
| 1527   | 4453    | RTA22200237F.o.18.1.P.Seq | F           | M00022836:73  | CH03MAH   |
| 1528   | 454152  | RTA22200020F.j.08.1.P.Seq | F           | M00054646:21  | CH17COHLV |
| 1529   | 9913    | RTA22200231F.m.19.1.P.Seq | F           | M00007991:71  | CH03MAH   |
| 1530   | 1350    | RTA22200227F.m.14.1.P.Seq | F           | M00006731:51  | CH02COH   |
| 1531   | 188     | RTA22200244F.i.18.1.P.Seq | F           | M00027194:15  | CH04MAL   |
| 1532   | 4471    | RTA22200232F.g.09.1.P.Seq | F           | M00022025:42  | CH03MAH   |
| 1533   | 2622    | RTA22200248F.i.16.1.P.Seq | F           | M00027573:69  | CH04MAL   |
| 1534   | 185465  | RTA22200248F.j.08.1.P.Seq | F           | M00027578:54  | CH04MAL   |
| 1535   | 19205   | RTA22200244F.b.14.1.P.Seq | F           | M00027171:27  | CH04MAL   |
| 1536   | 185635  | RTA22200242F.l.11.1.P.Seq | F           | M00027046:55  | CH04MAL   |
| 1537   | 5289    | RTA22200235F.o.06.2.P.Seq | F           | M00022559:49  | CH03MAH   |
| 1538   | 779     | RTA22200238F.f.01.1.P.Seq | F           | M00022901:511 | CH03MAH   |
| 1539   | 779     | RTA22200238F.e.24.1.P.Seq | F           | M00022901:511 | CH03MAH   |
| 1540   | 5289    | RTA22200235F.m.20.2.P.Seq | F           | M00022550:24  | CH03MAH   |
| 1541   | 456808  | RTA22200013F.d.22.1.P.Seq | F           | M00056823:17  | CH16COP   |
| 1542   | 646620  | RTA22200007F.n.14.1.P.Seq | F           | M00056267:22  | CH15CON   |
| 1543   | 546642  | RTA22200013F.d.21.1.P.Seq | F           | M00056823:25  | CH16COP   |
| 1544   | 649732  | RTA22200003F.n.10.1.P.Seq | F           | M00055716:24  | CH15CON   |
| 1545   | 5240    | RTA22200231F.f.05.1.P.Seq | F           | M00007953:89  | CH03MAH   |
| 1546   | 448046  | RTA22200009F.c.06.2.P.Seq | F           | M00042511:14  | CH16COP   |
| 1547   | 650476  | RTA22200008F.f.07.1.P.Seq | F           | M00056447:14  | CH15CON   |
| 1548   | 379341  | RTA22200016F.n.21.1.P.Seq | F           | M00057272:84  | CH16COP   |
| 1549   | 401849  | RTA22200003F.p.02.1.P.Seq | F           | M00055726:412 | CH15CON   |
| 1550   | 11452   | RTA22200227F.f.18.1.P.Seq | F           | M00006649:211 | CH02COH   |
| 1551   | 185417  | RTA22200242F.b.12.1.P.Seq | F           | M00026977:59  | CH04MAL   |
| 1552   | 4471    | RTA22200232F.c.20.1.P.Seq | F           | M00021925:810 | CH03MAH   |
| 1553   | 2557    | RTA22200228F.e.11.1.P.Seq | F           | M00006810:411 | CH02COH   |
| 1554   | 3656    | RTA22200227F.f.01.1.P.Seq | F           | M00006641:83  | CH02COH   |
| 1555   | 2327    | RTA22200241F.i.20.1.P.Seq | F           | M00026917:83  | CH04MAL   |
| 1556   | 449026  | RTA22200009F.o.17.1.P.Seq | F           | M00042867:81  | CH16COP   |
| 1557   | 730227  | RTA22200013F.n.03.1.P.Seq | F           | M00056896:610 | CH16COP   |
| 1558   | 650864  | RTA22200006F.e.08.2.P.Seq | F           | M00056028:63  | CH15CON   |
| 1559   | 530774  | RTA22200004F.j.19.1.P.Seq | F           | M00055803:111 | CH15CON   |
| 1560   | 395341  | RTA22200011F.g.06.1.P.Seq | F           | M00056580:610 | CH16COP   |
| 1561   | 557906  | RTA22200004F.a.07.1.P.Seq | F           | M00055735:75  | CH15CON   |
| 1562   | 452531  | RTA22200009F.j.08.2.P.Seq | F           | M00042842:58  | CH16COP   |
| 1563   | 559057  | RTA22200021F.e.09.3.P.Seq | F           | M00054747:36  | CH17COHLV |
| 1564   | 448046  | RTA22200014F.d.13.2.P.Seq | F           | M00056951:69  | CH16COP   |
| 1565   | 553547  | RTA22200022F.g.22.1.P.Seq | F           | M00054935:51  | CH17COHLV |
| 1566   | 4636    | RTA22200231F.e.20.1.P.Seq | F           | M00007953:11  | CH03MAH   |

Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 1567   | 455601  | RTA22200006F.f.06.2.P.Seq | F           | M00056037:22  | CH15CON   |
| 1568   | 172013  | RTA22200002F.c.05.1.P.Seq | F           | M00055441:42  | CH15CON   |
| 1569   | 552597  | RTA22200013F.a.02.1.P.Seq | F           | M00056791:612 | CH16COP   |
| 1570   | 446531  | RTA22200001F.c.11.1.P.Seq | F           | M00042547:411 | CH15CON   |
| 1571   | 639352  | RTA22200008F.a.09.1.P.Seq | F           | M00056293:79  | CH15CON   |
| 1572   | 642604  | RTA22200004F.e.12.1.P.Seq | F           | M00055771:65  | CH15CON   |
| 1573   | 558534  | RTA22200008F.c.04.1.P.Seq | F           | M00056310:76  | CH15CON   |
| 1574   | 556421  | RTA22200026F.b.02.1.P.Seq | F           | M00055408:59  | CH17COHLV |
| 1575   | 735477  | RTA22200016F.k.10.1.P.Seq | F           | M00057242:67  | CH16COP   |
| 1576   | 640703  | RTA22200014F.o.06.2.P.Seq | F           | M00057024:52  | CH16COP   |
| 1577   | 643878  | RTA22200015F.j.14.1.P.Seq | F           | M00057106:13  | CH16COP   |
| 1578   | 557797  | RTA22200004F.e.07.1.P.Seq | F           | M00055771:111 | CH15CON   |
| 1579   | 557200  | RTA22200021F.b.08.2.P.Seq | F           | M00054727:510 | CH17COHLV |
| 1580   | 729531  | RTA22200015F.h.06.1.P.Seq | F           | M00057091:512 | CH16COP   |
| 1581   | 734554  | RTA22200014F.o.09.2.P.Seq | F           | M00057024:88  | CH16COP   |
| 1582   | 418008  | RTA22200020F.e.16.1.P.Seq | F           | M00054601:810 | CH17COHLV |
| 1583   | 558614  | RTA22200024F.k.16.1.P.Seq | F           | M00055227:89  | CH17COHLV |
| 1584   | 452245  | RTA22200025F.l.16.1.P.Seq | F           | M00055381:59  | CH17COHLV |
| 1585   | 449891  | RTA22200019F.b.13.1.P.Seq | F           | M00043397:22  | CH17COHLV |
| 1586   | 547916  | RTA22200011F.a.18.1.P.Seq | F           | M00056529:612 | CH16COP   |
| 1587   | 6162    | RTA22200233F.l.19.1.P.Seq | F           | M00021628:211 | CH03MAH   |
| 1588   | 6162    | RTA22200234F.f.14.1.P.Seq | F           | M00022234:45  | CH03MAH   |
| 1589   | 4809    | RTA22200224F.d.21.1.P.Seq | F           | M00004868:412 | CH02COH   |
| 1590   | 3926    | RTA22200242F.d.18.1.P.Seq | F           | M00026993:86  | CH04MAL   |
| 1591   | 185693  | RTA22200248F.d.20.1.P.Seq | F           | M00027532:32  | CH04MAL   |
| 1592   | 641683  | RTA22200007F.m.16.1.P.Seq | F           | M00056256:811 | CH15CON   |
| 1593   | 11351   | RTA22200226F.o.18.1.P.Seq | F           | M00005818:29  | CH02COH   |
| 1594   | 650864  | RTA22200008F.g.16.1.P.Seq | F           | M00056467:57  | CH15CON   |
| 1595   | 460445  | RTA22200001F.i.11.1.P.Seq | F           | M00042728:57  | CH15CON   |
| 1596   | 447669  | RTA22200011F.e.16.1.P.Seq | F           | M00056561:48  | CH16COP   |
| 1597   | 227936  | RTA22200016F.m.13.1.P.Seq | F           | M00057259:810 | CH16COP   |
| 1598   | 639459  | RTA22200002F.l.20.1.P.Seq | F           | M00055532:78  | CH15CON   |
| 1599   | 650195  | RTA22200004F.a.04.1.P.Seq | F           | M00055734:85  | CH15CON   |
| 1600   | 734793  | RTA22200016F.n.06.1.P.Seq | F           | M00057268:510 | CH16COP   |
| 1601   | 540787  | RTA22200002F.m.10.1.P.Seq | F           | M00055536:56  | CH15CON   |
| 1602   | 400654  | RTA22200003F.n.13.1.P.Seq | F           | M00055718:65  | CH15CON   |
| 1603   | 731467  | RTA22200016F.f.21.1.P.Seq | F           | M00057208:36  | CH16COP   |
| 1604   | 4045    | RTA22200232F.g.23.1.P.Seq | F           | M00022052:18  | CH03MAH   |
| 1605   | 447669  | RTA22200011F.i.23.1.P.Seq | F           | M00056628:61  | CH16COP   |
| 1606   | 11351   | RTA22200230F.c.20.1.P.Seq | F           | M00007121:78  | CH02COH   |
| 1607   | 648931  | RTA22200002F.l.16.1.P.Seq | F           | M00055530:27  | CH15CON   |
| 1608   | 726786  | RTA22200016F.e.08.1.P.Seq | F           | M00057192:72  | CH16COP   |
| 1609   | 4508    | RTA22200226F.o.02.1.P.Seq | F           | M00005810:710 | CH02COH   |
| 1610   | 415058  | RTA22200022F.h.07.1.P.Seq | F           | M00054937:23  | CH17COHLV |
| 1611   | 450633  | RTA22200006F.l.11.2.P.Seq | F           | M00056085:811 | CH15CON   |
| 1612   | 736955  | RTA22200014F.h.05.2.P.Seq | F           | M00056973:28  | CH16COP   |
| 1613   | 729851  | RTA22200013F.h.15.1.P.Seq | F           | M00056858:23  | CH16COP   |
| 1614   | 2512    | RTA22200235F.c.11.1.P.Seq | F           | M00022430:410 | CH03MAH   |
| 1615   | 452704  | RTA22200008F.f.21.1.P.Seq | F           | M00056456:61  | CH15CON   |
| 1616   | 4589    | RTA22200230F.c.15.1.P.Seq | F           | M00007117:83  | CH02COH   |
| 1617   | 4727    | RTA22200233F.e.16.1.P.Seq | F           | M00008059:28  | CH03MAH   |
| 1618   | 454380  | RTA22200014F.d.23.1.P.Seq | F           | M00056953:16  | CH16COP   |
| 1619   | 553912  | RTA22200021F.j.04.3.P.Seq | F           | M00054808:47  | CH17COHLV |
| 1620   | 450004  | RTA22200012F.k.08.1.P.Seq | F           | M00056741:36  | CH16COP   |

Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
|--------|---------|---------------------------|-------------|---------------|-----------|
| 1621   | 448193  | RTA22200012F.g.20.1.P.Seq | F           | M00056715:34  | CH16COP   |
| 1622   | 549591  | RTA22200020F.i.03.1.P.Seq | F           | M00054636:62  | CH17COHLV |
| 1623   | 448511  | RTA22200023F.b.05.1.P.Seq | F           | M00055021:411 | CH17COHLV |
| 1624   | 335     | RTA22200012F.l.18.1.P.Seq | F           | M00056753:110 | CH16COP   |
| 1625   | 561382  | RTA22200026F.c.05.1.P.Seq | F           | M00055413:27  | CH17COHLV |
| 1626   | 3447    | RTA22200227F.k.15.1.P.Seq | F           | M00006705:19  | CH02COH   |
| 1627   | 639896  | RTA22200012F.c.15.1.P.Seq | F           | M00056684:611 | CH16COP   |
| 1628   | 1353    | RTA22200241F.e.20.1.P.Seq | F           | M00026890:42  | CH04MAL   |
| 1629   | 3031    | RTA22200229F.i.23.1.P.Seq | F           | M00006996:610 | CH02COH   |
| 1630   | 557928  | RTA22200021F.g.03.3.P.Seq | F           | M00054765:35  | CH17COHLV |
| 1631   | 4727    | RTA22200237F.n.09.1.P.Seq | F           | M00022829:810 | CH03MAH   |
| 1632   | 4046    | RTA22200226F.g.16.1.P.Seq | F           | M00005655:68  | CH02COH   |
| 1633   | 10882   | RTA22200241F.b.11.1.P.Seq | F           | M00026861:19  | CH04MAL   |
| 1634   | 646283  | RTA22200007F.c.22.1.P.Seq | F           | M00056161:74  | CH15CON   |
| 1635   | 646283  | RTA22200002F.d.05.1.P.Seq | F           | M00055448:57  | CH15CON   |
| 1636   | 139516  | RTA22200242F.e.16.1.P.Seq | F           | M00027000:65  | CH04MAL   |
| 1637   | 6184    | RTA22200230F.e.13.1.P.Seq | F           | M00007131:11  | CH02COH   |
| 1638   | 6184    | RTA22200228F.c.12.1.P.Seq | F           | M00006795:13  | CH02COH   |
| 1639   | 454653  | RTA22200013F.e.17.1.P.Seq | F           | M00056830:72  | CH16COP   |
| 1640   | 3309    | RTA22200232F.c.11.1.P.Seq | F           | M00021911:83  | CH03MAH   |
| 1641   | 1037    | RTA22200248F.e.02.1.P.Seq | F           | M00027535:58  | CH04MAL   |
| 1642   | 450665  | RTA22200002F.g.06.1.P.Seq | F           | M00055491:78  | CH15CON   |
| 1643   | 726307  | RTA22200016F.b.16.1.P.Seq | F           | M00057167:512 | CH16COP   |
| 1644   | 447669  | RTA22200001F.b.14.1.P.Seq | F           | M00042538:56  | CH15CON   |
| 1645   | 639651  | RTA22200003F.b.15.1.P.Seq | F           | M00055584:76  | CH15CON   |
| 1646   | 736860  | RTA22200015F.b.11.1.P.Seq | F           | M00057049:76  | CH16COP   |
| 1647   | 553705  | RTA22200025F.j.22.1.P.Seq | F           | M00055371:61  | CH17COHLV |
| 1648   | 451375  | RTA22200018F.j.20.1.P.Seq | F           | M00043336:58  | CH17COHLV |
| 1649   | 204862  | RTA22200006F.h.24.2.P.Seq | F           | M00056058:84  | CH15CON   |
| 1650   | 530883  | RTA22200011F.o.17.1.P.Seq | F           | M00056652:64  | CH16COP   |
| 1651   | 447539  | RTA22200001F.e.22.1.P.Seq | F           | M00042575:41  | CH15CON   |
| 1652   | 455096  | RTA22200020F.m.23.1.P.Seq | F           | M00054680:211 | CH17COHLV |
| 1653   | 8336    | RTA22200235F.g.01.1.P.Seq | F           | M00022470:71  | CH03MAH   |
| 1654   | 449142  | RTA22200006F.f.09.2.P.Seq | F           | M00056041:34  | CH15CON   |
| 1655   | 557401  | RTA22200003F.j.04.1.P.Seq | F           | M00055668:27  | CH15CON   |
| 1656   | 418763  | RTA22200002F.e.07.1.P.Seq | F           | M00055454:75  | CH15CON   |
| 1657   | 17649   | RTA22200238F.b.23.1.P.Seq | F           | M00022876:48  | CH03MAH   |
| 1658   | 2078    | RTA22200238F.h.11.1.P.Seq | F           | M00022928:63  | CH03MAH   |
| 1659   | 640370  | RTA22200010F.g.14.1.P.Seq | F           | M00056410:54  | CH16COP   |
| 1660   | 449269  | RTA22200005F.h.22.1.P.Seq | F           | M00055906:410 | CH15CON   |
| 1661   | 639029  | RTA22200006F.o.10.2.P.Seq | F           | M00056114:36  | CH15CON   |
| 1662   | 448677  | RTA22200023F.l.07.1.P.Seq | F           | M00055088:59  | CH17COHLV |
| 1663   | 349     | RTA22200233F.a.09.1.P.Seq | F           | M00008014:21  | CH03MAH   |
| 1664   | 447494  | RTA22200002F.e.05.1.P.Seq | F           | M00055454:811 | CH15CON   |
| 1665   | 551433  | RTA22200021F.k.12.3.P.Seq | F           | M00054816:411 | CH17COHLV |
| 1666   | 414739  | RTA22200019F.f.07.1.P.Seq | F           | M00043508:31  | CH17COHLV |
| 1667   | 640525  | RTA22200002F.n.01.1.P.Seq | F           | M00055543:35  | CH15CON   |
| 1668   | 640525  | RTA22200002F.m.24.1.P.Seq | F           | M00055543:35  | CH15CON   |
| 1669   | 233108  | RTA22200002F.p.10.1.P.Seq | F           | M00055560:212 | CH15CON   |
| 1670   | 643594  | RTA22200003F.l.06.1.P.Seq | F           | M00055687:61  | CH15CON   |
| 1671   | 1642    | RTA22200231F.a.18.1.P.Seq | F           | M00007931:110 | CH03MAH   |
| 1672   | 643804  | RTA22200003F.h.09.1.P.Seq | F           | M00055656:59  | CH15CON   |
| 1673   | 449701  | RTA22200012F.h.22.1.P.Seq | F           | M00056723:311 | CH16COP   |
| 1674   | 185695  | RTA22200242F.c.21.1.P.Seq | F           | M00026986:810 | CH04MAL   |

Table 1



Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 1675   | 555830  | RTA22200003F.k.13.1.P.Seq | F           | M00055679:17  | CH15CON   |
| 1676   | 227936  | RTA22200010F.n.11.1.P.Seq | F           | M00056505:47  | CH16COP   |
| 1677   | 1609    | RTA22200226F.g.09.1.P.Seq | F           | M00005650:16  | CH02COH   |
| 1678   | 643938  | RTA22200005F.o.22.1.P.Seq | F           | M00055980:110 | CH15CON   |
| 1679   | 3656    | RTA22200227F.e.24.1.P.Seq | F           | M00006641:83  | CH02COH   |
| 1680   | 16576   | RTA22200248F.e.07.1.P.Seq | F           | M00027536:712 | CH04MAL   |
| 1681   | 9784    | RTA22200243F.c.16.1.P.Seq | F           | M00027093:28  | CH04MAL   |
| 1682   | 2557    | RTA22200228F.p.12.2.P.Seq | F           | M00006917:48  | CH02COH   |
| 1683   | 4620    | RTA22200237F.o.15.1.P.Seq | F           | M00022834:71  | CH03MAH   |
| 1684   | 43642   | RTA22200021F.p.23.2.P.Seq | F           | M00054865:84  | CH17COHLV |
| 1685   | 555103  | RTA22200016F.l.08.1.P.Seq | F           | M00057249:36  | CH16COP   |
| 1686   | 643341  | RTA22200002F.g.16.1.P.Seq | F           | M00055495:72  | CH15CON   |
| 1687   | 185531  | RTA22200248F.l.12.1.P.Seq | F           | M00027588:31  | CH04MAL   |
| 1688   | 4045    | RTA22200224F.b.17.1.P.Seq | F           | M00004842:27  | CH02COH   |
| 1689   | 400258  | RTA22200011F.e.10.1.P.Seq | F           | M00056557:42  | CH16COP   |
| 1690   | 96618   | RTA22200248F.j.22.1.P.Seq | F           | M00027581:51  | CH04MAL   |
| 1691   | 646060  | RTA22200007F.p.23.1.P.Seq | F           | M00056291:71  | CH15CON   |
| 1692   | 5665    | RTA22200232F.a.17.1.P.Seq | F           | M00021854:57  | CH03MAH   |
| 1693   | 149265  | RTA22200241F.o.03.1.P.Seq | F           | M00026951:43  | CH04MAL   |
| 1694   | 727314  | RTA22200012F.g.14.1.P.Seq | F           | M00056714:86  | CH16COP   |
| 1695   | 736349  | RTA22200014F.d.03.1.P.Seq | F           | M00056947:69  | CH16COP   |
| 1696   | 648931  | RTA22200006F.k.13.2.P.Seq | F           | M00056081:25  | CH15CON   |
| 1697   | 553881  | RTA22200003F.m.10.1.P.Seq | F           | M00055703:79  | CH15CON   |
| 1698   | 7444    | RTA22200235F.d.02.1.P.Seq | F           | M00022440:41  | CH03MAH   |
| 1699   | 150     | RTA22200235F.p.14.2.P.Seq | F           | M00022571:411 | CH03MAH   |
| 1700   | 2889    | RTA22200228F.p.09.2.P.Seq | F           | M00006917:15  | CH02COH   |
| 1701   | 730670  | RTA22200013F.a.09.1.P.Seq | F           | M00056793:87  | CH16COP   |
| 1702   | 560984  | RTA22200021F.n.20.2.P.Seq | F           | M00054851:53  | CH17COHLV |
| 1703   | 453708  | RTA22200026F.e.10.1.P.Seq | F           | M00055425:35  | CH17COHLV |
| 1704   | 48977   | RTA22200024F.p.08.1.P.Seq | F           | M00055259:64  | CH17COHLV |
| 1705   | 547916  | RTA22200008F.g.01.1.P.Seq | F           | M00056459:37  | CH15CON   |
| 1706   | 547916  | RTA22200008F.f.24.1.P.Seq | F           | M00056459:37  | CH15CON   |
| 1707   | 97507   | RTA22200023F.p.11.1.P.Seq | F           | M00055134:82  | CH17COHLV |
| 1708   | 735966  | RTA22200012F.n.08.1.P.Seq | F           | M00056766:110 | CH16COP   |
| 1709   | 35      | RTA22200012F.m.20.1.P.Seq | F           | M00056760:14  | CH16COP   |
| 1710   | 650195  | RTA22200002F.m.11.1.P.Seq | F           | M00055536:63  | CH15CON   |
| 1711   | 639705  | RTA22200002F.i.11.1.P.Seq | F           | M00055510:27  | CH15CON   |
| 1712   | 185465  | RTA22200013F.c.17.1.P.Seq | F           | M00056817:33  | CH16COP   |
| 1713   | 378525  | RTA22200015F.h.03.1.P.Seq | F           | M00057091:33  | CH16COP   |
| 1714   | 2889    | RTA22200228F.p.10.2.P.Seq | F           | M00006917:14  | CH02COH   |
| 1715   | 557686  | RTA22200025F.f.19.1.P.Seq | F           | M00055334:89  | CH17COHLV |
| 1716   | 735786  | RTA22200010F.h.02.1.P.Seq | F           | M00056414:15  | CH16COP   |
| 1717   | 455145  | RTA22200003F.f.10.1.P.Seq | F           | M00055636:610 | CH15CON   |
| 1718   | 639667  | RTA22200002F.k.13.1.P.Seq | F           | M00055525:27  | CH15CON   |
| 1719   | 446913  | RTA22200001F.m.21.1.P.Seq | F           | M00042905:310 | CH15CON   |
| 1720   | 402494  | RTA22200014F.c.09.2.P.Seq | F           | M00056941:52  | CH16COP   |
| 1721   | 734256  | RTA22200014F.l.11.1.P.Seq | F           | M00057005:43  | CH16COP   |
| 1722   | 734256  | RTA22200012F.g.05.1.P.Seq | F           | M00056711:15  | CH16COP   |
| 1723   | 559362  | RTA22200023F.n.21.1.P.Seq | F           | M00055115:55  | CH17COHLV |
| 1724   | 639651  | RTA22200003F.c.22.1.P.Seq | F           | M00055597:58  | CH15CON   |
| 1725   | 419774  | RTA22200008F.g.11.1.P.Seq | F           | M00056466:52  | CH15CON   |
| 1726   | 555318  | RTA22200025F.a.17.1.P.Seq | F           | M00055271:35  | CH17COHLV |
| 1727   | 449956  | RTA22200010F.b.08.1.P.Seq | F           | M00056359:111 | CH16COP   |
| 1728   | 558427  | RTA22200015F.p.12.1.P.Seq | F           | M00057146:39  | CH16COP   |

Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 1729   | 7531    | RTA22200225F.j.13.1.P.Seq | F           | M00005491:812 | CH02COH   |
| 1730   | 446514  | RTA22200001F.a.16.1.P.Seq | F           | M00042527:47  | CH15CON   |
| 1731   | 456808  | RTA22200010F.o.15.1.P.Seq | F           | M00056512:59  | CH16COP   |
| 1732   | 447035  | RTA22200003F.f.08.1.P.Seq | F           | M00055635:510 | CH15CON   |
| 1733   | 446913  | RTA22200001F.j.16.1.P.Seq | F           | M00042742:16  | CH15CON   |
| 1734   | 446900  | RTA22200022F.g.20.1.P.Seq | F           | M00054934:43  | CH17COHLV |
| 1735   | 504513  | RTA22200003F.f.07.1.P.Seq | F           | M00055635:810 | CH15CON   |
| 1736   | 380477  | RTA22200014F.j.09.1.P.Seq | F           | M00056993:26  | CH16COP   |
| 1737   | 1213    | RTA22200244F.p.13.1.P.Seq | F           | M00027231:13  | CH04MAL   |
| 1738   | 8259    | RTA22200222F.l.14.1.P.Seq | F           | M00004093:310 | CH01COH   |
| 1739   | 8259    | RTA22200222F.h.23.1.P.Seq | F           | M00003922:83  | CH01COH   |
| 1740   | 552968  | RTA22200019F.d.20.1.P.Seq | F           | M00043503:38  | CH17COHLV |
| 1741   | 650845  | RTA22200010F.o.09.1.P.Seq | F           | M00056511:812 | CH16COP   |
| 1742   | 648594  | RTA22200014F.h.17.1.P.Seq | F           | M00056977:73  | CH16COP   |
| 1743   | 648594  | RTA22200014F.h.17.2.P.Seq | F           | M00056977:73  | CH16COP   |
| 1744   | 2796    | RTA22200240F.c.13.1.P.Seq | F           | M00023331:111 | CH04MAL   |
| 1745   | 5753    | RTA22200227F.f.13.1.P.Seq | F           | M00006648:15  | CH02COH   |
| 1746   | 734256  | RTA22200014F.l.11.2.P.Seq | F           | M00057005:43  | CH16COP   |
| 1747   | 449580  | RTA22200007F.p.19.1.P.Seq | F           | M00056290:58  | CH15CON   |
| 1748   | 553705  | RTA22200021F.a.23.2.P.Seq | F           | M00054726:68  | CH17COHLV |
| 1749   | 730670  | RTA22200011F.n.02.1.P.Seq | F           | M00056638:21  | CH16COP   |
| 1750   | 15035   | RTA22200001F.c.07.1.P.Seq | F           | M00042544:610 | CH15CON   |
| 1751   | 394436  | RTA22200002F.o.12.1.P.Seq | F           | M00055552:39  | CH15CON   |
| 1752   | 726810  | RTA22200011F.h.22.1.P.Seq | F           | M00056592:33  | CH16COP   |
| 1753   | 352763  | RTA22200022F.j.12.1.P.Seq | F           | M00054949:17  | CH17COHLV |
| 1754   | 3506    | RTA22200240F.i.14.1.P.Seq | F           | M00023414:63  | CH04MAL   |
| 1755   | 726377  | RTA22200015F.i.14.1.P.Seq | F           | M00057100:23  | CH16COP   |
| 1756   | 562111  | RTA22200018F.d.10.1.P.Seq | F           | M00042460:17  | CH17COHLV |
| 1757   | 404475  | RTA22200010F.m.04.1.P.Seq | F           | M00056496:89  | CH16COP   |
| 1758   | 13824   | RTA22200234F.m.16.1.P.Seq | F           | M00022370:72  | CH03MAH   |
| 1759   | 558222  | RTA22200019F.h.07.1.P.Seq | F           | M00054502:41  | CH17COHLV |
| 1760   | 2834    | RTA22200224F.p.09.1.P.Seq | F           | M00005406:111 | CH02COH   |
| 1761   | 453470  | RTA22200001F.a.10.1.P.Seq | F           | M00042523:35  | CH15CON   |
| 1762   | 558682  | RTA22200015F.o.16.1.P.Seq | F           | M00057141:22  | CH16COP   |
| 1763   | 641710  | RTA22200016F.j.03.1.P.Seq | F           | M00057231:79  | CH16COP   |
| 1764   | 640221  | RTA22200013F.k.12.1.P.Seq | F           | M00056874:71  | CH16COP   |
| 1765   | 559057  | RTA22200016F.n.11.1.P.Seq | F           | M00057270:89  | CH16COP   |
| 1766   | 551433  | RTA22200025F.m.12.2.P.Seq | F           | M00055385:76  | CH17COHLV |
| 1767   | 5729    | RTA22200228F.f.10.1.P.Seq | F           | M00006819:25  | CH02COH   |
| 1768   | 352763  | RTA22200022F.g.09.1.P.Seq | F           | M00054931:19  | CH17COHLV |
| 1769   | 375651  | RTA22200012F.m.08.1.P.Seq | F           | M00056757:63  | CH16COP   |
| 1770   | 644032  | RTA22200012F.m.04.1.P.Seq | F           | M00056756:15  | CH16COP   |
| 1771   | 185562  | RTA22200240F.j.15.1.P.Seq | F           | M00023428:611 | CH04MAL   |
| 1772   | 736349  | RTA22200014F.d.03.2.P.Seq | F           | M00056947:69  | CH16COP   |
| 1773   | 638870  | RTA22200012F.h.13.1.P.Seq | F           | M00056721:67  | CH16COP   |
| 1774   | 649719  | RTA22200012F.k.03.1.P.Seq | F           | M00056739:48  | CH16COP   |
| 1775   | 62016   | RTA22200026F.d.09.1.P.Seq | F           | M00055420:74  | CH17COHLV |
| 1776   | 2889    | RTA22200229F.p.17.1.P.Seq | F           | M00007084:74  | CH02COH   |
| 1777   | 647135  | RTA22200010F.k.08.1.P.Seq | F           | M00056480:110 | CH16COP   |
| 1778   | 8283    | RTA22200224F.g.10.1.P.Seq | F           | M00005309:55  | CH02COH   |
| 1779   | 732121  | RTA22200014F.d.06.1.P.Seq | F           | M00056949:66  | CH16COP   |
| 1780   | 532307  | RTA22200022F.h.09.1.P.Seq | F           | M00054937:112 | CH17COHLV |
| 1781   | 6589    | RTA22200226F.n.24.1.P.Seq | F           | M00005810:67  | CH02COH   |
| 1782   | 554678  | RTA22200010F.b.19.1.P.Seq | F           | M00056363:26  | CH16COP   |

Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
|--------|---------|---------------------------|-------------|---------------|-----------|
| 1783   | 450410  | RTA22200021F.a.09.2.P.Seq | F           | M00054722:41  | CH17COHLV |
| 1784   | 643924  | RTA22200002F.a.21.1.P.Seq | F           | M00055427:61  | CH15CON   |
| 1785   | 453719  | RTA22200002F.a.17.1.P.Seq | F           | M00055426:86  | CH15CON   |
| 1786   | 451811  | RTA22200003F.k.17.1.P.Seq | F           | M00055681:72  | CH15CON   |
| 1787   | 453059  | RTA22200003F.b.22.1.P.Seq | F           | M00055586:62  | CH15CON   |
| 1788   | 453457  | RTA22200021F.a.06.2.P.Seq | F           | M00054721:611 | CH17COHLV |
| 1789   | 558454  | RTA22200020F.a.20.1.P.Seq | F           | M00054572:31  | CH17COHLV |
| 1790   | 417467  | RTA22200025F.c.11.1.P.Seq | F           | M00055289:42  | CH17COHLV |
| 1791   | 447850  | RTA22200001F.a.23.1.P.Seq | F           | M00042532:68  | CH15CON   |
| 1792   | 557948  | RTA22200024F.n.05.1.P.Seq | F           | M00055245:19  | CH17COHLV |
| 1793   | 452685  | RTA22200022F.b.14.1.P.Seq | F           | M00054877:812 | CH17COHLV |
| 1794   | 446964  | RTA22200019F.e.05.1.P.Seq | F           | M00043504:78  | CH17COHLV |
| 1795   | 550318  | RTA22200021F.d.04.2.P.Seq | F           | M00054741:310 | CH17COHLV |
| 1796   | 407077  | RTA22200023F.p.13.1.P.Seq | F           | M00055134:23  | CH17COHLV |
| 1797   | 650864  | RTA22200007F.o.19.1.P.Seq | F           | M00056282:44  | CH15CON   |
| 1798   | 644721  | RTA22200003F.p.16.1.P.Seq | F           | M00055731:812 | CH15CON   |
| 1799   | 485431  | RTA22200013F.l.17.1.P.Seq | F           | M00056885:36  | CH16COP   |
| 1800   | 651073  | RTA22200007F.f.05.1.P.Seq | F           | M00056186:62  | CH15CON   |
| 1801   | 725811  | RTA22200012F.o.17.1.P.Seq | F           | M00056776:49  | CH16COP   |
| 1802   | 645139  | RTA22200005F.k.02.1.P.Seq | F           | M00055924:811 | CH15CON   |
| 1803   | 185478  | RTA22200248F.j.05.1.P.Seq | F           | M00027578:65  | CH04MAL   |
| 1804   | 1441    | RTA22200228F.j.04.2.P.Seq | F           | M00006859:44  | CH02COH   |
| 1805   | 640005  | RTA22200002F.i.16.1.P.Seq | F           | M00055511:59  | CH15CON   |
| 1806   | 728273  | RTA22200015F.h.04.1.P.Seq | F           | M00057091:34  | CH16COP   |
| 1807   | 185579  | RTA22200242F.e.07.1.P.Seq | F           | M00026996:16  | CH04MAL   |
| 1808   | 724473  | RTA22200012F.f.23.1.P.Seq | F           | M00056711:31  | CH16COP   |
| 1809   | 559674  | RTA22200014F.h.06.1.P.Seq | F           | M00056974:64  | CH16COP   |
| 1810   | 456026  | RTA22200005F.d.13.1.P.Seq | F           | M00055873:53  | CH15CON   |
| 1811   | 549320  | RTA22200022F.a.02.1.P.Seq | F           | M00054867:37  | CH17COHLV |
| 1812   | 447338  | RTA22200001F.k.04.1.P.Seq | F           | M00042746:29  | CH15CON   |
| 1813   | 560700  | RTA22200002F.b.09.1.P.Seq | F           | M00055430:82  | CH15CON   |
| 1814   | 3070    | RTA22200021F.g.19.3.P.Seq | F           | M00054769:67  | CH17COHLV |
| 1815   | 3070    | RTA22200002F.f.03.1.P.Seq | F           | M00055463:810 | CH15CON   |
| 1816   | 380477  | RTA22200014F.j.09.2.P.Seq | F           | M00056993:26  | CH16COP   |
| 1817   | 735040  | RTA22200015F.b.05.1.P.Seq | F           | M00057047:32  | CH16COP   |
| 1818   | 378525  | RTA22200009F.j.16.2.P.Seq | F           | M00042826:33  | CH16COP   |
| 1819   | 284586  | RTA22200009F.c.23.2.P.Seq | F           | M00042756:21  | CH16COP   |
| 1820   | 640276  | RTA22200014F.e.15.2.P.Seq | F           | M00056956:61  | CH16COP   |
| 1821   | 3344    | RTA22200230F.j.07.1.P.Seq | F           | M00007178:43  | CH02COH   |
| 1822   | 555830  | RTA22200005F.b.23.1.P.Seq | F           | M00055861:43  | CH15CON   |
| 1823   | 726307  | RTA22200011F.i.10.1.P.Seq | F           | M00056595:62  | CH16COP   |
| 1824   | 416     | RTA22200011F.m.06.1.P.Seq | F           | M00056631:75  | CH16COP   |
| 1825   | 2543    | RTA22200225F.o.10.1.P.Seq | F           | M00005545:18  | CH02COH   |
| 1826   | 639352  | RTA22200001F.n.09.1.P.Seq | F           | M00042908:71  | CH15CON   |
| 1827   | 453592  | RTA22200009F.l.04.2.P.Seq | F           | M00042842:31  | CH16COP   |
| 1828   | 450633  | RTA22200006F.n.19.2.P.Seq | F           | M00056107:56  | CH15CON   |
| 1829   | 448383  | RTA22200009F.l.15.2.P.Seq | F           | M00042844:312 | CH16COP   |
| 1830   | 648719  | RTA22200008F.a.08.1.P.Seq | F           | M00056293:65  | CH15CON   |
| 1831   | 730655  | RTA22200012F.h.16.1.P.Seq | F           | M00056722:71  | CH16COP   |
| 1832   | 141185  | RTA22200007F.j.21.2.P.Seq | F           | M00056228:17  | CH15CON   |
| 1833   | 640498  | RTA22200003F.m.07.1.P.Seq | F           | M00055703:28  | CH15CON   |
| 1834   | 9029    | RTA22200222F.l.08.1.P.Seq | F           | M00004087:211 | CH01COH   |
| 1835   | 559674  | RTA22200014F.h.06.2.P.Seq | F           | M00056974:64  | CH16COP   |
| 1836   | 555734  | RTA22200021F.n.09.2.P.Seq | F           | M00054844:66  | CH17COHLV |

Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
|--------|---------|---------------------------|-------------|---------------|-----------|
| 1837   | 1943    | RTA22200017F.d.22.1.P.Seq | F           | M00057333:69  | CH16COP   |
| 1838   | 648320  | RTA22200004F.d.05.1.P.Seq | F           | M00055761:33  | CH15CON   |
| 1839   | 558098  | RTA22200024F.p.10.1.P.Seq | F           | M00055260:15  | CH17COHLV |
| 1840   | 468672  | RTA22200004F.h.23.1.P.Seq | F           | M00055794:26  | CH15CON   |
| 1841   | 456596  | RTA22200022F.f.19.1.P.Seq | F           | M00054926:61  | CH17COHLV |
| 1842   | 649722  | RTA22200012F.n.07.1.P.Seq | F           | M00056765:410 | CH16COP   |
| 1843   | 550708  | RTA22200022F.o.19.1.P.Seq | F           | M00054996:211 | CH17COHLV |
| 1844   | 643931  | RTA22200005F.n.14.1.P.Seq | F           | M00055966:13  | CH15CON   |
| 1845   | 726927  | RTA22200011F.j.08.1.P.Seq | F           | M00056603:41  | CH16COP   |
| 1846   | 459012  | RTA22200007F.b.13.1.P.Seq | F           | M00056149:21  | CH15CON   |
| 1847   | 397773  | RTA22200003F.c.13.1.P.Seq | F           | M00055592:15  | CH15CON   |
| 1848   | 450004  | RTA22200011F.f.04.1.P.Seq | F           | M00056566:81  | CH16COP   |
| 1849   | 649732  | RTA22200007F.o.23.1.P.Seq | F           | M00056282:89  | CH15CON   |
| 1850   | 553955  | RTA22200021F.f.08.3.P.Seq | F           | M00054755:86  | CH17COHLV |
| 1851   | 646309  | RTA22200012F.h.04.1.P.Seq | F           | M00056718:21  | CH16COP   |
| 1852   | 402727  | RTA22200024F.m.16.1.P.Seq | F           | M00055243:64  | CH17COHLV |
| 1853   | 468736  | RTA22200024F.m.17.1.P.Seq | F           | M00055243:71  | CH17COHLV |
| 1854   | 650422  | RTA22200007F.a.16.1.P.Seq | F           | M00056141:45  | CH15CON   |
| 1855   | 730533  | RTA22200013F.b.15.1.P.Seq | F           | M00056808:212 | CH16COP   |
| 1856   | 726307  | RTA22200015F.a.17.1.P.Seq | F           | M00057044:66  | CH16COP   |
| 1857   | 450311  | RTA22200005F.j.22.1.P.Seq | F           | M00055922:32  | CH15CON   |
| 1858   | 450940  | RTA22200001F.j.15.1.P.Seq | F           | M00042742:83  | CH15CON   |
| 1859   | 726786  | RTA22200015F.f.06.1.P.Seq | F           | M00057077:42  | CH16COP   |
| 1860   | 7634    | RTA22200235F.b.19.1.P.Seq | F           | M00022420:83  | CH03MAH   |
| 1861   | 230995  | RTA22200016F.e.14.1.P.Seq | F           | M00057196:64  | CH16COP   |
| 1862   | 374770  | RTA22200003F.n.21.1.P.Seq | F           | M00055720:16  | CH15CON   |
| 1863   | 9275    | RTA22200249F.g.11.1.P.Seq | F           | M00027665:41  | CH04MAL   |
| 1864   | 553860  | RTA22200023F.k.02.1.P.Seq | F           | M00055077:611 | CH17COHLV |
| 1865   | 452010  | RTA22200001F.m.07.1.P.Seq | F           | M00042900:37  | CH15CON   |
| 1866   | 649560  | RTA22200015F.j.16.1.P.Seq | F           | M00057106:52  | CH16COP   |
| 1867   | 452704  | RTA22200008F.b.18.1.P.Seq | F           | M00056307:812 | CH15CON   |
| 1868   | 447594  | RTA22200007F.j.10.1.P.Seq | F           | M00056225:79  | CH15CON   |
| 1869   | 555444  | RTA22200015F.n.10.1.P.Seq | F           | M00057130:811 | CH16COP   |
| 1870   | 736556  | RTA22200017F.c.20.1.P.Seq | F           | M00057318:13  | CH16COP   |
| 1871   | 5289    | RTA22200235F.l.12.2.P.Seq | F           | M00022533:56  | CH03MAH   |
| 1872   | 732121  | RTA22200015F.c.11.1.P.Seq | F           | M00057059:66  | CH16COP   |
| 1873   | 452567  | RTA22200009F.f.12.1.P.Seq | F           | M00042783:13  | CH16COP   |
| 1874   | 551634  | RTA22200002F.n.04.1.P.Seq | F           | M00055544:54  | CH15CON   |
| 1875   | 644099  | RTA22200005F.g.07.1.P.Seq | F           | M00055887:67  | CH15CON   |
| 1876   | 726788  | RTA22200012F.h.08.1.P.Seq | F           | M00056719:19  | CH16COP   |
| 1877   | 638802  | RTA22200012F.a.02.1.P.Seq | F           | M00056662:63  | CH16COP   |
| 1878   | 646283  | RTA22200002F.o.18.1.P.Seq | F           | M00055553:82  | CH15CON   |
| 1879   | 8403    | RTA22200238F.n.03.1.P.Seq | F           | M00022998:38  | CH03MAH   |
| 1880   | 2224    | RTA22200233F.g.23.1.P.Seq | F           | M00008079:33  | CH03MAH   |
| 1881   | 650053  | RTA22200008F.g.02.1.P.Seq | F           | M00056459:47  | CH15CON   |
| 1882   | 380477  | RTA22200008F.e.20.1.P.Seq | F           | M00056437:87  | CH15CON   |
| 1883   | 450867  | RTA22200019F.a.09.1.P.Seq | F           | M00043386:16  | CH17COHLV |
| 1884   | 456764  | RTA22200003F.n.22.1.P.Seq | F           | M00055720:11  | CH15CON   |
| 1885   | 641373  | RTA22200003F.b.11.1.P.Seq | F           | M00055583:24  | CH15CON   |
| 1886   | 555882  | RTA22200004F.m.12.1.P.Seq | F           | M00055818:510 | CH15CON   |
| 1887   | 644046  | RTA22200008F.b.04.1.P.Seq | F           | M00056302:612 | CH15CON   |
| 1888   | 447250  | RTA22200009F.d.15.2.P.Seq | F           | M00042760:37  | CH16COP   |
| 1889   | 456596  | RTA22200022F.o.14.1.P.Seq | F           | M00054995:310 | CH17COHLV |
| 1890   | 2218    | RTA22200225F.d.15.1.P.Seq | F           | M00005447:41  | CH02COH   |

Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
|--------|---------|---------------------------|-------------|---------------|-----------|
| 1891   | 446450  | RTA22200001F.h.16.1.P.Seq | F           | M00042718:33  | CH15CON   |
| 1892   | 640889  | RTA22200003F.l.12.1.P.Seq | F           | M00055691:57  | CH15CON   |
| 1893   | 530774  | RTA22200025F.n.12.2.P.Seq | F           | M00055391:78  | CH17COHLV |
| 1894   | 649062  | RTA22200002F.j.14.1.P.Seq | F           | M00055519:87  | CH15CON   |
| 1895   | 12808   | RTA22200233F.m.15.1.P.Seq | F           | M00021649:512 | CH03MAH   |
| 1896   | 468672  | RTA22200001F.g.11.1.P.Seq | F           | M00042704:64  | CH15CON   |
| 1897   | 650773  | RTA22200008F.d.12.1.P.Seq | F           | M00056324:42  | CH15CON   |
| 1898   | 732237  | RTA22200014F.j.12.2.P.Seq | F           | M00056994:67  | CH16COP   |
| 1899   | 650773  | RTA22200001F.o.15.1.P.Seq | F           | M00054798:61  | CH15CON   |
| 1900   | 550216  | RTA22200021F.b.09.2.P.Seq | F           | M00054727:86  | CH17COHLV |
| 1901   | 639189  | RTA22200002F.n.20.1.P.Seq | F           | M00055547:55  | CH15CON   |
| 1902   | 3447    | RTA22200227F.l.17.1.P.Seq | F           | M00006719:87  | CH02COH   |
| 1903   | 2012    | RTA22200248F.c.03.1.P.Seq | F           | M00027524:211 | CH04MAL   |
| 1904   | 642876  | RTA22200005F.b.13.1.P.Seq | F           | M00055856:64  | CH15CON   |
| 1905   | 449690  | RTA22200009F.j.10.2.P.Seq | F           | M00042823:74  | CH16COP   |
| 1906   | 451208  | RTA22200004F.k.07.1.P.Seq | F           | M00055804:63  | CH15CON   |
| 1907   | 725811  | RTA22200011F.k.18.1.P.Seq | F           | M00056616:38  | CH16COP   |
| 1908   | 1256    | RTA22200232F.b.11.1.P.Seq | F           | M00021869:41  | CH03MAH   |
| 1909   | 446599  | RTA22200004F.f.18.1.P.Seq | F           | M00055780:78  | CH15CON   |
| 1910   | 446537  | RTA22200001F.c.05.1.P.Seq | F           | M00042544:42  | CH15CON   |
| 1911   | 726281  | RTA22200010F.l.02.1.P.Seq | F           | M00056484:72  | CH16COP   |
| 1912   | 11286   | RTA22200226F.n.17.1.P.Seq | F           | M00005802:810 | CH02COH   |
| 1913   | 556082  | RTA22200022F.p.11.1.P.Seq | F           | M00055005:811 | CH17COHLV |
| 1914   | 97507   | RTA22200005F.a.21.1.P.Seq | F           | M00055851:711 | CH15CON   |
| 1915   | 535955  | RTA22200022F.b.11.1.P.Seq | F           | M00054876:73  | CH17COHLV |
| 1916   | 728251  | RTA22200011F.i.08.1.P.Seq | F           | M00056595:37  | CH16COP   |
| 1917   | 733849  | RTA22200015F.g.08.1.P.Seq | F           | M00057085:13  | CH16COP   |
| 1918   | 447574  | RTA22200014F.k.20.2.P.Seq | F           | M00057002:25  | CH16COP   |
| 1919   | 7607    | RTA22200229F.g.17.1.P.Seq | F           | M00006976:45  | CH02COH   |
| 1920   | 644032  | RTA22200010F.i.21.1.P.Seq | F           | M00056425:23  | CH16COP   |
| 1921   | 454087  | RTA22200012F.f.13.1.P.Seq | F           | M00056709:15  | CH16COP   |
| 1922   | 412364  | RTA22200007F.p.02.1.P.Seq | F           | M00056283:33  | CH15CON   |
| 1923   | 535208  | RTA22200002F.m.04.1.P.Seq | F           | M00055534:81  | CH15CON   |
| 1924   | 644609  | RTA22200002F.m.21.1.P.Seq | F           | M00055542:66  | CH15CON   |
| 1925   | 645073  | RTA22200004F.o.14.1.P.Seq | F           | M00055830:710 | CH15CON   |
| 1926   | 417467  | RTA22200012F.g.08.1.P.Seq | F           | M00056712:26  | CH16COP   |
| 1927   | 554188  | RTA22200004F.n.02.1.P.Seq | F           | M00055821:712 | CH15CON   |
| 1928   | 647185  | RTA22200005F.n.02.1.P.Seq | F           | M00055958:62  | CH15CON   |
| 1929   | 736679  | RTA22200012F.a.20.1.P.Seq | F           | M00056666:38  | CH16COP   |
| 1930   | 553547  | RTA22200022F.j.02.1.P.Seq | F           | M00054947:712 | CH17COHLV |
| 1931   | 641524  | RTA22200016F.c.06.1.P.Seq | F           | M00057170:83  | CH16COP   |
| 1932   | 649717  | RTA22200003F.f.02.1.P.Seq | F           | M00055633:12  | CH15CON   |
| 1933   | 451041  | RTA22200018F.a.16.1.P.Seq | F           | M00042355:31  | CH17COHLV |
| 1934   | 3483    | RTA22200225F.e.24.1.P.Seq | F           | M00005459:21  | CH02COH   |
| 1935   | 500959  | RTA22200008F.c.24.1.P.Seq | F           | M00056323:810 | CH15CON   |
| 1936   | 500959  | RTA22200008F.d.01.1.P.Seq | F           | M00056323:810 | CH15CON   |
| 1937   | 697     | RTA22200233F.b.10.1.P.Seq | F           | M00008020:33  | CH03MAH   |
| 1938   | 736955  | RTA22200013F.f.22.1.P.Seq | F           | M00056840:89  | CH16COP   |
| 1939   | 554742  | RTA22200004F.l.14.1.P.Seq | F           | M00055811:312 | CH15CON   |
| 1940   | 642973  | RTA22200015F.n.14.1.P.Seq | F           | M00057132:68  | CH16COP   |
| 1941   | 449437  | RTA22200008F.b.13.1.P.Seq | F           | M00056304:711 | CH15CON   |
| 1942   | 467991  | RTA22200002F.j.11.1.P.Seq | F           | M00055517:43  | CH15CON   |
| 1943   | 650204  | RTA22200004F.n.13.1.P.Seq | F           | M00055825:53  | CH15CON   |
| 1944   | 640618  | RTA22200004F.p.17.1.P.Seq | F           | M00055840:46  | CH15CON   |

Table 1



Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
|--------|---------|---------------------------|-------------|---------------|-----------|
| 1945   | 452366  | RTA22200002F.j.05.1.P.Seq | F           | M00055514:85  | CH15CON   |
| 1946   | 640276  | RTA22200012F.p.05.1.P.Seq | F           | M00056780:69  | CH16COP   |
| 1947   | 554101  | RTA22200012F.f.24.1.P.Seq | F           | M00056711:65  | CH16COP   |
| 1948   | 185432  | RTA22200249F.p.01.1.P.Seq | F           | M00027742:21  | CH04MAL   |
| 1949   | 455598  | RTA22200022F.m.06.1.P.Seq | F           | M00054970:73  | CH17COHLV |
| 1950   | 649354  | RTA22200001F.o.05.1.P.Seq | F           | M00054792:59  | CH15CON   |
| 1951   | 4408    | RTA22200242F.j.13.1.P.Seq | F           | M00027034:49  | CH04MAL   |
| 1952   | 452366  | RTA22200006F.o.03.2.P.Seq | F           | M00056110:49  | CH15CON   |
| 1953   | 452366  | RTA22200001F.e.02.1.P.Seq | F           | M00042563:79  | CH15CON   |
| 1954   | 727331  | RTA22200016F.a.19.1.P.Seq | F           | M00057161:59  | CH16COP   |
| 1955   | 644853  | RTA22200008F.a.05.1.P.Seq | F           | M00056293:58  | CH15CON   |
| 1956   | 554079  | RTA22200014F.k.21.2.P.Seq | F           | M00057002:26  | CH16COP   |
| 1957   | 556245  | RTA22200023F.l.05.1.P.Seq | F           | M00055088:112 | CH17COHLV |
| 1958   | 557388  | RTA22200012F.p.13.1.P.Seq | F           | M00056783:711 | CH16COP   |
| 1959   | 449468  | RTA22200012F.l.11.1.P.Seq | F           | M00056752:51  | CH16COP   |
| 1960   | 556245  | RTA22200023F.o.12.1.P.Seq | F           | M00055125:56  | CH17COHLV |
| 1961   | 455327  | RTA22200013F.b.03.1.P.Seq | F           | M00056804:56  | CH16COP   |
| 1962   | 546632  | RTA22200015F.a.10.1.P.Seq | F           | M00057041:211 | CH16COP   |
| 1963   | 558762  | RTA22200022F.a.03.1.P.Seq | F           | M00054867:22  | CH17COHLV |
| 1964   | 550818  | RTA22200020F.d.10.1.P.Seq | F           | M00054590:72  | CH17COHLV |
| 1965   | 554079  | RTA22200021F.p.09.2.P.Seq | F           | M00054862:27  | CH17COHLV |
| 1966   | 452430  | RTA22200016F.e.07.1.P.Seq | F           | M00057192:52  | CH16COP   |
| 1967   | 452430  | RTA22200008F.e.11.1.P.Seq | F           | M00056342:611 | CH15CON   |
| 1968   | 556082  | RTA22200019F.i.02.1.P.Seq | F           | M00054507:311 | CH17COHLV |
| 1969   | 514418  | RTA22200023F.e.23.1.P.Seq | F           | M00055046:511 | CH17COHLV |
| 1970   | 426895  | RTA22200021F.p.14.2.P.Seq | F           | M00054863:73  | CH17COHLV |
| 1971   | 560803  | RTA22200025F.c.05.1.P.Seq | F           | M00055283:65  | CH17COHLV |
| 1972   | 447737  | RTA22200018F.c.11.1.P.Seq | F           | M00042453:51  | CH17COHLV |
| 1973   | 373432  | RTA22200018F.l.18.1.P.Seq | F           | M00043350:89  | CH17COHLV |
| 1974   | 779     | RTA22200250F.f.02.1.P.Seq | F           | M00027820:32  | CH04MAL   |
| 1975   | 455327  | RTA22200015F.m.05.1.P.Seq | F           | M00057124:410 | CH16COP   |
| 1976   | 554742  | RTA22200004F.k.16.1.P.Seq | F           | M00055806:812 | CH15CON   |
| 1977   | 455327  | RTA22200022F.g.14.1.P.Seq | F           | M00054933:47  | CH17COHLV |
| 1978   | 11043   | RTA22200228F.j.10.2.P.Seq | F           | M00006861:18  | CH02COH   |
| 1979   | 727447  | RTA22200012F.c.14.1.P.Seq | F           | M00056684:15  | CH16COP   |
| 1980   | 552905  | RTA22200011F.i.16.1.P.Seq | F           | M00056597:67  | CH16COP   |
| 1981   | 446900  | RTA22200001F.g.23.1.P.Seq | F           | M00042711:711 | CH15CON   |
| 1982   | 644190  | RTA22200005F.j.02.1.P.Seq | F           | M00055913:45  | CH15CON   |
| 1983   | 455327  | RTA22200021F.c.18.2.P.Seq | F           | M00054739:73  | CH17COHLV |
| 1984   | 422375  | RTA22200020F.g.01.1.P.Seq | F           | M00054613:49  | CH17COHLV |
| 1985   | 422375  | RTA22200020F.f.24.1.P.Seq | F           | M00054613:49  | CH17COHLV |
| 1986   | 530774  | RTA22200025F.p.22.2.P.Seq | F           | M00055405:49  | CH17COHLV |
| 1987   | 554101  | RTA22200012F.g.01.1.P.Seq | F           | M00056711:65  | CH16COP   |
| 1988   | 5268    | RTA22200226F.g.10.1.P.Seq | F           | M00005650:44  | CH02COH   |
| 1989   | 642461  | RTA22200012F.g.18.1.P.Seq | F           | M00056715:71  | CH16COP   |
| 1990   | 770     | RTA22200003F.a.18.1.P.Seq | F           | M00055575:48  | CH15CON   |
| 1991   | 3837    | RTA22200231F.b.24.1.P.Seq | F           | M00007936:29  | CH03MAH   |
| 1992   | 561382  | RTA22200022F.d.20.1.P.Seq | F           | M00054899:71  | CH17COHLV |
| 1993   | 4408    | RTA22200248F.e.13.1.P.Seq | F           | M00027543:29  | CH04MAL   |
| 1994   | 5686    | RTA22200234F.j.21.1.P.Seq | F           | M00022279:84  | CH03MAH   |
| 1995   | 374609  | RTA22200013F.e.23.1.P.Seq | F           | M00056833:31  | CH16COP   |
| 1996   | 734793  | RTA22200012F.h.06.1.P.Seq | F           | M00056719:46  | CH16COP   |
| 1997   | 452430  | RTA22200014F.f.18.2.P.Seq | F           | M00056964:12  | CH16COP   |
| 1998   | 450940  | RTA22200020F.n.11.1.P.Seq | F           | M00054684:812 | CH17COHLV |

Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
|--------|---------|---------------------------|-------------|---------------|-----------|
| 1999   | 460445  | RTA22200024F.c.23.1.P.Seq | F           | M00055162:66  | CH17COHLV |
| 2000   | 549041  | RTA22200020F.i.01.1.P.Seq | F           | M00054636:23  | CH17COHLV |
| 2001   | 555276  | RTA22200018F.g.13.1.P.Seq | F           | M00043313:77  | CH17COHLV |
| 2002   | 426895  | RTA22200015F.l.18.1.P.Seq | F           | M00057120:512 | CH16COP   |
| 2003   | 1833    | RTA22200224F.f.16.1.P.Seq | F           | M00005293:46  | CH02COH   |
| 2004   | 446450  | RTA22200009F.h.08.1.P.Seq | F           | M00042805:56  | CH16COP   |
| 2005   | 650517  | RTA22200007F.l.18.2.P.Seq | F           | M00056248:19  | CH15CON   |
| 2006   | 554785  | RTA22200026F.f.14.1.P.Seq | F           | M00055479:312 | CH17COHLV |
| 2007   | 607430  | RTA22200002F.i.06.1.P.Seq | F           | M00055508:53  | CH15CON   |
| 2008   | 446673  | RTA22200012F.a.18.1.P.Seq | F           | M00056665:55  | CH16COP   |
| 2009   | 734685  | RTA22200014F.i.17.2.P.Seq | F           | M00056986:71  | CH16COP   |
| 2010   | 11630   | RTA22200248F.h.02.1.P.Seq | F           | M00027562:32  | CH04MAL   |
| 2011   | 2930    | RTA22200228F.c.13.1.P.Seq | F           | M00006795:47  | CH02COH   |
| 2012   | 44424   | RTA22200006F.f.07.2.P.Seq | F           | M00056038:64  | CH15CON   |
| 2013   | 452052  | RTA22200001F.e.19.1.P.Seq | F           | M00042574:88  | CH15CON   |
| 2014   | 449356  | RTA22200009F.j.14.2.P.Seq | F           | M00042826:35  | CH16COP   |
| 2015   | 726225  | RTA22200010F.d.04.1.P.Seq | F           | M00056372:310 | CH16COP   |
| 2016   | 453708  | RTA22200022F.j.14.1.P.Seq | F           | M00054950:76  | CH17COHLV |
| 2017   | 447858  | RTA22200003F.n.20.1.P.Seq | F           | M00055720:79  | CH15CON   |
| 2018   | 451613  | RTA22200018F.e.18.1.P.Seq | F           | M00043301:89  | CH17COHLV |
| 2019   | 650337  | RTA22200008F.c.18.1.P.Seq | F           | M00056319:71  | CH15CON   |
| 2020   | 62016   | RTA22200019F.k.10.1.P.Seq | F           | M00054522:811 | CH17COHLV |
| 2021   | 447250  | RTA22200014F.f.02.2.P.Seq | F           | M00056960:35  | CH16COP   |
| 2022   | 3837    | RTA22200231F.c.01.1.P.Seq | F           | M00007936:29  | CH03MAH   |
| 2023   | 640614  | RTA22200017F.e.22.1.P.Seq | F           | M00057340:312 | CH16COP   |
| 2024   | 729531  | RTA22200013F.g.24.1.P.Seq | F           | M00056850:511 | CH16COP   |
| 2025   | 729531  | RTA22200013F.h.01.1.P.Seq | F           | M00056850:511 | CH16COP   |
| 2026   | 647952  | RTA22200004F.j.07.1.P.Seq | F           | M00055800:38  | CH15CON   |
| 2027   | 446913  | RTA22200004F.k.19.1.P.Seq | F           | M00055806:67  | CH15CON   |
| 2028   | 2675    | RTA22200233F.a.20.1.P.Seq | F           | M00008015:68  | CH03MAH   |
| 2029   | 643481  | RTA22200003F.i.13.1.P.Seq | F           | M00055664:18  | CH15CON   |
| 2030   | 1345    | RTA22200012F.l.22.1.P.Seq | F           | M00056754:84  | CH16COP   |
| 2031   | 26      | RTA22200231F.a.03.1.P.Seq | F           | M00007926:15  | CH03MAH   |
| 2032   | 945     | RTA22200230F.h.02.1.P.Seq | F           | M00007156:56  | CH02COH   |
| 2033   | 449169  | RTA22200009F.b.09.2.P.Seq | F           | M00042461:110 | CH16COP   |
| 2034   | 394193  | RTA22200007F.h.10.1.P.Seq | F           | M00056209:612 | CH15CON   |
| 2035   | 452212  | RTA22200006F.h.13.2.P.Seq | F           | M00056055:21  | CH15CON   |
| 2036   | 394193  | RTA22200007F.i.15.2.P.Seq | F           | M00056220:42  | CH15CON   |
| 2037   | 1310    | RTA22200235F.o.10.2.P.Seq | F           | M00022561:16  | CH03MAH   |
| 2038   | 734094  | RTA22200016F.k.07.1.P.Seq | F           | M00057241:24  | CH16COP   |
| 2039   | 646579  | RTA22200002F.h.08.1.P.Seq | F           | M00055498:89  | CH15CON   |
| 2040   | 4471    | RTA22200233F.j.22.1.P.Seq | F           | M00008098:81  | CH03MAH   |
| 2041   | 729173  | RTA22200016F.e.13.1.P.Seq | F           | M00057196:53  | CH16COP   |
| 2042   | 450323  | RTA22200009F.i.11.2.P.Seq | F           | M00042814:211 | CH16COP   |
| 2043   | 4652    | RTA22200241F.n.17.1.P.Seq | F           | M00026950:612 | CH04MAL   |
| 2044   | 553316  | RTA22200021F.a.10.2.P.Seq | F           | M00054722:38  | CH17COHLV |
| 2045   | 642604  | RTA22200016F.j.10.1.P.Seq | F           | M00057233:67  | CH16COP   |
| 2046   | 553316  | RTA22200002F.i.02.1.P.Seq | F           | M00055504:48  | CH15CON   |
| 2047   | 4097    | RTA22200249F.f.14.1.P.Seq | F           | M00027652:73  | CH04MAL   |
| 2048   | 6818    | RTA22200006F.f.12.2.P.Seq | F           | M00056042:11  | CH15CON   |
| 2049   | 395341  | RTA22200024F.c.22.1.P.Seq | F           | M00055161:111 | CH17COHLV |
| 2050   | 649143  | RTA22200007F.o.20.1.P.Seq | F           | M00056282:31  | CH15CON   |
| 2051   | 649143  | RTA22200007F.o.18.1.P.Seq | F           | M00056282:611 | CH15CON   |
| 2052   | 648310  | RTA22200007F.e.16.1.P.Seq | F           | M00056184:61  | CH15CON   |

Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 2053   | 447574  | RTA22200014F.k.20.1.P.Seq | F           | M00057002:25  | CH16COP   |
| 2054   | 648931  | RTA22200004F.b.12.1.P.Seq | F           | M00055744:68  | CH15CON   |
| 2055   | 6878    | RTA22200231F.a.01.1.P.Seq | F           | M00007926:17  | CH03MAH   |
| 2056   | 452238  | RTA22200009F.d.09.2.P.Seq | F           | M00042758:812 | CH16COP   |
| 2057   | 1870    | RTA22200238F.g.09.1.P.Seq | F           | M00022911:71  | CH03MAH   |
| 2058   | 559259  | RTA22200002F.n.12.1.P.Seq | F           | M00055545:812 | CH15CON   |
| 2059   | 453457  | RTA22200004F.a.06.1.P.Seq | F           | M00055735:37  | CH15CON   |
| 2060   | 8868    | RTA22200233F.l.13.1.P.Seq | F           | M00021626:64  | CH03MAH   |
| 2061   | 453059  | RTA22200001F.b.21.1.P.Seq | F           | M00042540:63  | CH15CON   |
| 2062   | 236368  | RTA22200008F.d.09.1.P.Seq | F           | M00056323:17  | CH15CON   |
| 2063   | 453059  | RTA22200001F.b.18.1.P.Seq | F           | M00042539:55  | CH15CON   |
| 2064   | 549979  | RTA22200007F.c.06.1.P.Seq | F           | M00056153:41  | CH15CON   |
| 2065   | 515631  | RTA22200014F.j.22.2.P.Seq | F           | M00056996:112 | CH16COP   |
| 2066   | 2235    | RTA22200234F.f.22.1.P.Seq | F           | M00022236:12  | CH03MAH   |
| 2067   | 448193  | RTA22200016F.n.15.1.P.Seq | F           | M00057271:51  | CH16COP   |
| 2068   | 530774  | RTA22200010F.c.12.1.P.Seq | F           | M00056368:64  | CH16COP   |
| 2069   | 650204  | RTA22200002F.d.14.1.P.Seq | F           | M00055450:28  | CH15CON   |
| 2070   | 644240  | RTA22200005F.j.19.1.P.Seq | F           | M00055921:53  | CH15CON   |
| 2071   | 552614  | RTA22200022F.l.11.1.P.Seq | F           | M00054965:82  | CH17COHLV |
| 2072   | 727331  | RTA22200011F.b.04.1.P.Seq | F           | M00056532:76  | CH16COP   |
| 2073   | 185457  | RTA22200244F.n.05.1.P.Seq | F           | M00027220:212 | CH04MAL   |
| 2074   | 454531  | RTA22200022F.a.11.1.P.Seq | F           | M00054869:41  | CH17COHLV |
| 2075   | 643485  | RTA22200006F.g.19.2.P.Seq | F           | M00056050:13  | CH15CON   |
| 2076   | 733669  | RTA22200013F.m.22.1.P.Seq | F           | M00056895:17  | CH16COP   |
| 2077   | 452344  | RTA22200016F.b.19.1.P.Seq | F           | M00057167:27  | CH16COP   |
| 2078   | 63602   | RTA22200002F.b.11.1.P.Seq | F           | M00055431:59  | CH15CON   |
| 2079   | 454155  | RTA22200004F.j.13.1.P.Seq | F           | M00055802:48  | CH15CON   |
| 2080   | 549903  | RTA22200013F.b.22.1.P.Seq | F           | M00056811:34  | CH16COP   |
| 2081   | 515631  | RTA22200014F.j.22.1.P.Seq | F           | M00056996:112 | CH16COP   |
| 2082   | 6878    | RTA22200248F.j.20.1.P.Seq | F           | M00027580:510 | CH04MAL   |
| 2083   | 2977    | RTA22200231F.l.18.1.P.Seq | F           | M00007983:86  | CH03MAH   |
| 2084   | 553823  | RTA22200006F.i.02.2.P.Seq | F           | M00056060:210 | CH15CON   |
| 2085   | 3070    | RTA22200026F.a.07.1.P.Seq | F           | M00055405:77  | CH17COHLV |
| 2086   | 728884  | RTA22200012F.k.06.1.P.Seq | F           | M00056740:25  | CH16COP   |
| 2087   | 8166    | RTA22200009F.c.03.2.P.Seq | F           | M00042469:84  | CH16COP   |
| 2088   | 644190  | RTA22200010F.b.18.1.P.Seq | F           | M00056362:75  | CH16COP   |
| 2089   | 733669  | RTA22200015F.l.05.1.P.Seq | F           | M00057117:711 | CH16COP   |
| 2090   | 728273  | RTA22200011F.i.07.1.P.Seq | F           | M00056595:12  | CH16COP   |
| 2091   | 406499  | RTA22200004F.a.13.1.P.Seq | F           | M00055736:77  | CH15CON   |
| 2092   | 557720  | RTA22200022F.k.07.1.P.Seq | F           | M00054954:61  | CH17COHLV |
| 2093   | 732050  | RTA22200015F.d.10.1.P.Seq | F           | M00057065:44  | CH16COP   |
| 2094   | 450867  | RTA22200020F.j.18.1.P.Seq | F           | M00054648:810 | CH17COHLV |
| 2095   | 650297  | RTA22200016F.a.01.1.P.Seq | F           | M00057151:24  | CH16COP   |
| 2096   | 448064  | RTA22200009F.f.08.1.P.Seq | F           | M00042781:16  | CH16COP   |
| 2097   | 452530  | RTA22200018F.p.03.1.P.Seq | F           | M00043374:26  | CH17COHLV |
| 2098   | 7592    | RTA22200225F.m.10.1.P.Seq | F           | M00005515:84  | CH02COH   |
| 2099   | 733669  | RTA22200016F.b.13.1.P.Seq | F           | M00057165:512 | CH16COP   |
| 2100   | 11028   | RTA22200228F.d.13.1.P.Seq | F           | M00006806:39  | CH02COH   |
| 2101   | 1013    | RTA22200001F.h.22.1.P.Seq | F           | M00042720:710 | CH15CON   |
| 2102   | 549265  | RTA22200002F.h.03.1.P.Seq | F           | M00055496:39  | CH15CON   |
| 2103   | 376600  | RTA22200013F.p.08.1.P.Seq | F           | M00056911:62  | CH16COP   |
| 2104   | 643804  | RTA22200004F.p.14.1.P.Seq | F           | M00055839:110 | CH15CON   |
| 2105   | 454927  | RTA22200026F.d.08.1.P.Seq | F           | M00055420:610 | CH17COHLV |
| 2106   | 446528  | RTA22200006F.i.06.2.P.Seq | F           | M00056061:66  | CH15CON   |

Table 1



Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
|--------|---------|---------------------------|-------------|---------------|-----------|
| 2107   | 2218    | RTA22200226F.n.14.1.P.Seq | F           | M00005800:411 | CH02COH   |
| 2108   | 452704  | RTA22200004F.a.01.1.P.Seq | F           | M00055733:711 | CH15CON   |
| 2109   | 84895   | RTA22200014F.m.13.2.P.Seq | F           | M00057013:41  | CH16COP   |
| 2110   | 157629  | RTA22200242F.c.11.1.P.Seq | F           | M00026984:410 | CH04MAL   |
| 2111   | 2930    | RTA22200229F.h.22.1.P.Seq | F           | M00006990:52  | CH02COH   |
| 2112   | 7037    | RTA22200230F.k.08.1.P.Seq | F           | M00007194:24  | CH02COH   |
| 2113   | 559806  | RTA22200002F.i.04.1.P.Seq | F           | M00055505:110 | CH15CON   |
| 2114   | 452076  | RTA22200004F.g.03.1.P.Seq | F           | M00055783:311 | CH15CON   |
| 2115   | 454869  | RTA22200004F.e.14.1.P.Seq | F           | M00055771:44  | CH15CON   |
| 2116   | 559674  | RTA22200023F.j.05.1.P.Seq | F           | M00055071:12  | CH17COHLV |
| 2117   | 2235    | RTA22200232F.n.21.1.P.Seq | F           | M00022149:31  | CH03MAH   |
| 2118   | 7545    | RTA22200222F.k.06.1.P.Seq | F           | M00004054:75  | CH01COH   |
| 2119   | 729173  | RTA22200016F.n.22.1.P.Seq | F           | M00057272:11  | CH16COP   |
| 2120   | 650448  | RTA22200004F.m.09.1.P.Seq | F           | M00055818:612 | CH15CON   |
| 2121   | 172013  | RTA22200002F.j.16.1.P.Seq | F           | M00055520:16  | CH15CON   |
| 2122   | 651088  | RTA22200014F.c.15.1.P.Seq | F           | M00056945:211 | CH16COP   |
| 2123   | 651088  | RTA22200014F.c.15.2.P.Seq | F           | M00056945:211 | CH16COP   |
| 2124   | 726810  | RTA22200015F.o.06.1.P.Seq | F           | M00057136:61  | CH16COP   |
| 2125   | 406499  | RTA22200004F.n.23.1.P.Seq | F           | M00055827:12  | CH15CON   |
| 2126   | 556325  | RTA22200023F.i.03.1.P.Seq | F           | M00055087:110 | CH17COHLV |
| 2127   | 644836  | RTA22200004F.i.13.1.P.Seq | F           | M00055797:48  | CH15CON   |
| 2128   | 649062  | RTA22200007F.d.04.1.P.Seq | F           | M00056162:59  | CH15CON   |
| 2129   | 454776  | RTA22200011F.d.07.1.P.Seq | F           | M00056551:62  | CH16COP   |
| 2130   | 377579  | RTA22200025F.f.17.1.P.Seq | F           | M00055332:711 | CH17COHLV |
| 2131   | 728131  | RTA22200014F.o.08.1.P.Seq | F           | M00057024:75  | CH16COP   |
| 2132   | 475203  | RTA22200016F.a.05.1.P.Seq | F           | M00057154:24  | CH16COP   |
| 2133   | 727314  | RTA22200011F.p.15.1.P.Seq | F           | M00056659:78  | CH16COP   |
| 2134   | 552025  | RTA22200019F.k.13.1.P.Seq | F           | M00054523:110 | CH17COHLV |
| 2135   | 561382  | RTA22200004F.d.11.1.P.Seq | F           | M00055765:25  | CH15CON   |
| 2136   | 732579  | RTA22200017F.a.22.1.P.Seq | F           | M00057300:62  | CH16COP   |
| 2137   | 167     | RTA22200012F.o.22.1.P.Seq | F           | M00056779:512 | CH16COP   |
| 2138   | 185585  | RTA22200241F.i.21.1.P.Seq | F           | M00026937:28  | CH04MAL   |
| 2139   | 728131  | RTA22200014F.o.08.2.P.Seq | F           | M00057024:75  | CH16COP   |
| 2140   | 475203  | RTA22200014F.m.07.2.P.Seq | F           | M00057011:43  | CH16COP   |
| 2141   | 724616  | RTA22200011F.l.16.1.P.Seq | F           | M00056622:33  | CH16COP   |
| 2142   | 726594  | RTA22200015F.d.13.1.P.Seq | F           | M00057066:14  | CH16COP   |
| 2143   | 645222  | RTA22200008F.a.16.1.P.Seq | F           | M00056300:15  | CH15CON   |
| 2144   | 400362  | RTA22200024F.j.22.1.P.Seq | F           | M00055222:85  | CH17COHLV |
| 2145   | 646583  | RTA22200009F.m.15.1.P.Seq | F           | M00042850:310 | CH16COP   |
| 2146   | 475203  | RTA22200014F.m.07.1.P.Seq | F           | M00057011:43  | CH16COP   |
| 2147   | 550001  | RTA22200002F.e.03.1.P.Seq | F           | M00055454:17  | CH15CON   |
| 2148   | 640703  | RTA22200002F.i.19.1.P.Seq | F           | M00055512:47  | CH15CON   |
| 2149   | 646583  | RTA22200007F.k.10.2.P.Seq | F           | M00056236:71  | CH15CON   |
| 2150   | 449468  | RTA22200014F.l.23.1.P.Seq | F           | M00057008:59  | CH16COP   |
| 2151   | 449468  | RTA22200016F.h.22.1.P.Seq | F           | M00057223:36  | CH16COP   |
| 2152   | 551628  | RTA22200001F.l.16.1.P.Seq | F           | M00042891:34  | CH15CON   |
| 2153   | 449468  | RTA22200014F.l.23.2.P.Seq | F           | M00057008:59  | CH16COP   |
| 2154   | 417259  | RTA22200021F.l.19.3.P.Seq | F           | M00054804:812 | CH17COHLV |
| 2155   | 448029  | RTA22200009F.n.10.1.P.Seq | F           | M00042856:67  | CH16COP   |
| 2156   | 524363  | RTA22200024F.h.07.1.P.Seq | F           | M00055201:13  | CH17COHLV |
| 2157   | 446531  | RTA22200023F.n.24.1.P.Seq | F           | M00055116:22  | CH17COHLV |
| 2158   | 561359  | RTA22200008F.a.11.1.P.Seq | F           | M00056295:67  | CH15CON   |
| 2159   | 711297  | RTA22200007F.f.10.1.P.Seq | F           | M00056190:72  | CH15CON   |
| 2160   | 650097  | RTA22200015F.g.20.1.P.Seq | F           | M00057088:32  | CH16COP   |

Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 2161   | 495715  | RTA22200021F.m.16.2.P.Seq | F           | M00054839:22  | CH17COHLV |
| 2162   | 734685  | RTA22200014F.i.17.1.P.Seq | F           | M00056986:71  | CH16COP   |
| 2163   | 560515  | RTA22200023F.g.10.1.P.Seq | F           | M00055054:32  | CH17COHLV |
| 2164   | 3441    | RTA22200235F.l.18.2.P.Seq | F           | M00022537:311 | CH03MAH   |
| 2165   | 729273  | RTA22200016F.i.03.1.P.Seq | F           | M00057224:310 | CH16COP   |
| 2166   | 557039  | RTA22200004F.g.15.1.P.Seq | F           | M00055786:45  | CH15CON   |
| 2167   | 711297  | RTA22200015F.k.22.1.P.Seq | F           | M00057114:210 | CH16COP   |
| 2168   | 711297  | RTA22200014F.g.08.2.P.Seq | F           | M00056967:42  | CH16COP   |
| 2169   | 2860    | RTA22200012F.i.07.1.P.Seq | F           | M00056726:75  | CH16COP   |
| 2170   | 558534  | RTA22200020F.l.05.1.P.Seq | F           | M00054665:511 | CH17COHLV |
| 2171   | 711297  | RTA22200014F.g.08.1.P.Seq | F           | M00056967:42  | CH16COP   |
| 2172   | 378457  | RTA22200025F.g.08.1.P.Seq | F           | M00055338:87  | CH17COHLV |
| 2173   | 646583  | RTA22200007F.n.04.1.P.Seq | F           | M00056263:31  | CH15CON   |
| 2174   | 646583  | RTA22200006F.p.06.2.P.Seq | F           | M00056128:210 | CH15CON   |
| 2175   | 1996    | RTA22200012F.m.23.1.P.Seq | F           | M00056762:55  | CH16COP   |
| 2176   | 7962    | RTA22200235F.d.18.1.P.Seq | F           | M00022452:27  | CH03MAH   |
| 2177   | 645139  | RTA22200013F.n.18.1.P.Seq | F           | M00056902:812 | CH16COP   |
| 2178   | 449468  | RTA22200018F.g.12.1.P.Seq | F           | M00043313:13  | CH17COHLV |
| 2179   | 9898    | RTA22200238F.f.06.1.P.Seq | F           | M00022902:810 | CH03MAH   |
| 2180   | 406499  | RTA22200004F.i.15.1.P.Seq | F           | M00055797:57  | CH15CON   |
| 2181   | 1257    | RTA22200230F.h.06.1.P.Seq | F           | M00007156:68  | CH02COH   |
| 2182   | 549903  | RTA22200004F.g.12.1.P.Seq | F           | M00055785:58  | CH15CON   |
| 2183   | 557906  | RTA22200004F.j.22.1.P.Seq | F           | M00055803:48  | CH15CON   |
| 2184   | 3538    | RTA22200222F.c.09.1.P.Seq | F           | M00001491:38  | CH01COH   |
| 2185   | 3114    | RTA22200231F.n.12.1.P.Seq | F           | M00007994:311 | CH03MAH   |
| 2186   | 426895  | RTA22200018F.l.24.1.P.Seq | F           | M00043352:25  | CH17COHLV |
| 2187   | 923     | RTA22200015F.c.15.1.P.Seq | F           | M00057060:112 | CH16COP   |
| 2188   | 645194  | RTA22200007F.h.17.1.P.Seq | F           | M00056212:71  | CH15CON   |
| 2189   | 550161  | RTA22200014F.a.06.1.P.Seq | F           | M00056921:37  | CH16COP   |
| 2190   | 650119  | RTA22200005F.d.21.1.P.Seq | F           | M00055874:43  | CH15CON   |
| 2191   | 642142  | RTA22200016F.g.21.1.P.Seq | F           | M00057217:27  | CH16COP   |
| 2192   | 419255  | RTA22200004F.l.20.1.P.Seq | F           | M00055814:411 | CH15CON   |
| 2193   | 552905  | RTA22200019F.j.20.1.P.Seq | F           | M00054518:43  | CH17COHLV |
| 2194   | 511997  | RTA22200005F.b.22.1.P.Seq | F           | M00055860:18  | CH15CON   |
| 2195   | 551434  | RTA22200003F.m.02.1.P.Seq | F           | M00055701:410 | CH15CON   |
| 2196   | 727447  | RTA22200012F.m.18.1.P.Seq | F           | M00056759:73  | CH16COP   |
| 2197   | 378786  | RTA22200025F.o.11.2.P.Seq | F           | M00055396:77  | CH17COHLV |
| 2198   | 649152  | RTA22200006F.p.11.2.P.Seq | F           | M00056131:312 | CH15CON   |
| 2199   | 18853   | RTA22200023F.p.10.1.P.Seq | F           | M00055134:53  | CH17COHLV |
| 2200   | 643481  | RTA22200005F.f.05.1.P.Seq | F           | M00055884:510 | CH15CON   |
| 2201   | 644417  | RTA22200004F.p.08.1.P.Seq | F           | M00055838:712 | CH15CON   |
| 2202   | 726788  | RTA22200011F.i.17.1.P.Seq | F           | M00056597:32  | CH16COP   |
| 2203   | 206     | RTA22200248F.m.13.1.P.Seq | F           | M00027594:33  | CH04MAL   |
| 2204   | 395930  | RTA22200011F.c.20.1.P.Seq | F           | M00056548:311 | CH16COP   |
| 2205   | 185589  | RTA22200244F.a.15.1.P.Seq | F           | M00027168:810 | CH04MAL   |
| 2206   | 1441    | RTA22200225F.i.15.1.P.Seq | F           | M00005485:25  | CH02COH   |
| 2207   | 14522   | RTA22200241F.h.19.1.P.Seq | F           | M00026909:73  | CH04MAL   |
| 2208   | 203605  | RTA22200013F.n.02.1.P.Seq | F           | M00056896:65  | CH16COP   |
| 2209   | 551527  | RTA22200019F.g.15.1.P.Seq | F           | M00054496:29  | CH17COHLV |
| 2210   | 4509    | RTA22200225F.m.07.1.P.Seq | F           | M00005514:16  | CH02COH   |
| 2211   | 447737  | RTA22200001F.g.12.1.P.Seq | F           | M00042704:69  | CH15CON   |
| 2212   | 447388  | RTA22200004F.k.08.1.P.Seq | F           | M00055804:61  | CH15CON   |
| 2213   | 451932  | RTA22200002F.c.24.1.P.Seq | F           | M00055447:84  | CH15CON   |
| 2214   | 559043  | RTA22200025F.c.20.1.P.Seq | F           | M00055294:44  | CH17COHLV |

Table 1

Table 1

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| 2215   | 380634  | RTA22200021F.n.06.2.P.Seq | F           | M00054842:311 | CH17COHLV |
| 2216   | 495715  | RTA22200018F.p.18.1.P.Seq | F           | M00043379:37  | CH17COHLV |
| 2217   | 451932  | RTA22200002F.d.01.1.P.Seq | F           | M00055447:84  | CH15CON   |
| 2218   | 447939  | RTA22200002F.d.12.1.P.Seq | F           | M00055450:79  | CH15CON   |
| 2219   | 1181    | RTA22200250F.c.03.1.P.Seq | F           | M00027781:54  | CH04MAL   |
| 2220   | 376600  | RTA22200017F.a.06.1.P.Seq | F           | M00057288:58  | CH16COP   |
| 2221   | 234761  | RTA22200001F.j.10.1.P.Seq | F           | M00042739:41  | CH15CON   |
| 2222   | 644417  | RTA22200014F.d.20.1.P.Seq | F           | M00056952:16  | CH16COP   |
| 2223   | 639048  | RTA22200004F.c.05.1.P.Seq | F           | M00055749:811 | CH15CON   |
| 2224   | 11452   | RTA22200226F.d.16.1.P.Seq | F           | M00005628:310 | CH02COH   |
| 2225   | 452076  | RTA22200001F.c.17.1.P.Seq | F           | M00042551:49  | CH15CON   |
| 2226   | 644523  | RTA22200005F.c.07.1.P.Seq | F           | M00055864:82  | CH15CON   |
| 2227   | 554678  | RTA22200021F.h.11.3.P.Seq | F           | M00054776:61  | CH17COHLV |
| 2228   | 3550    | RTA22200236F.k.16.1.P.Seq | F           | M00022656:511 | CH03MAH   |
| 2229   | 450311  | RTA22200007F.d.12.1.P.Seq | F           | M00056167:28  | CH15CON   |
| 2230   | 647280  | RTA22200005F.o.13.1.P.Seq | F           | M00055976:61  | CH15CON   |
| 2231   | 548858  | RTA22200026F.f.18.1.P.Seq | F           | M00055480:810 | CH17COHLV |
| 2232   | 4204    | RTA22200225F.p.22.1.P.Seq | F           | M00005568:29  | CH02COH   |
| 2233   | 540690  | RTA22200011F.f.19.1.P.Seq | F           | M00056574:17  | CH16COP   |
| 2234   | 404774  | RTA22200009F.k.06.2.P.Seq | F           | M00042833:71  | CH16COP   |
| 2235   | 557823  | RTA22200023F.h.01.1.P.Seq | F           | M00055057:63  | CH17COHLV |
| 2236   | 1458    | RTA22200242F.g.04.1.P.Seq | F           | M00027014:74  | CH04MAL   |
| 2237   | 485431  | RTA22200020F.e.01.1.P.Seq | F           | M00054595:89  | CH17COHLV |
| 2238   | 2245    | RTA22200229F.l.11.1.P.Seq | F           | M00007032:69  | CH02COH   |
| 2239   | 3242    | RTA22200226F.p.09.1.P.Seq | F           | M00005826:710 | CH02COH   |
| 2240   | 648747  | RTA22200007F.m.12.1.P.Seq | F           | M00056254:82  | CH15CON   |
| 2241   | 3805    | RTA22200222F.c.01.1.P.Seq | F           | M00001470:71  | CH01COH   |
| 2242   | 475203  | RTA22200012F.c.17.1.P.Seq | F           | M00056688:65  | CH16COP   |
| 2243   | 12018   | RTA22200240F.h.11.1.P.Seq | F           | M00023399:38  | CH04MAL   |
| 2244   | 475203  | RTA22200009F.i.18.2.P.Seq | F           | M00042818:512 | CH16COP   |
| 2245   | 3805    | RTA22200222F.b.24.1.P.Seq | F           | M00001470:71  | CH01COH   |
| 2246   | 496132  | RTA22200018F.e.23.1.P.Seq | F           | M00043304:41  | CH17COHLV |
| 2247   | 650600  | RTA22200005F.m.01.1.P.Seq | F           | M00055941:212 | CH15CON   |
| 2248   | 650749  | RTA22200004F.g.10.1.P.Seq | F           | M00055785:63  | CH15CON   |
| 2249   | 223148  | RTA22200023F.n.05.1.P.Seq | F           | M00055106:47  | CH17COHLV |
| 2250   | 449     | RTA22200018F.m.12.1.P.Seq | F           | M00043355:811 | CH17COHLV |
| 2251   | 735620  | RTA22200013F.g.07.1.P.Seq | F           | M00056843:89  | CH16COP   |
| 2252   | 650600  | RTA22200005F.l.24.1.P.Seq | F           | M00055941:212 | CH15CON   |
| 2253   | 218     | RTA22200021F.m.03.2.P.Seq | F           | M00054832:59  | CH17COHLV |
| 2254   | 4161    | RTA22200222F.d.07.1.P.Seq | F           | M00001561:71  | CH01COH   |
| 2255   | 373202  | RTA22200025F.f.01.1.P.Seq | F           | M00055322:51  | CH17COHLV |
| 2256   | 724339  | RTA22200010F.l.14.1.P.Seq | F           | M00056490:52  | CH16COP   |
| 2257   | 113291  | RTA22200007F.p.17.1.P.Seq | F           | M00056290:65  | CH15CON   |
| 2258   | 736753  | RTA22200016F.f.22.1.P.Seq | F           | M00057208:48  | CH16COP   |
| 2259   | 650600  | RTA22200003F.m.18.1.P.Seq | F           | M00055706:11  | CH15CON   |
| 2260   | 451569  | RTA22200013F.l.03.1.P.Seq | F           | M00056879:12  | CH16COP   |
| 2261   | 1297    | RTA22200233F.n.06.1.P.Seq | F           | M00021655:82  | CH03MAH   |
| 2262   | 3680    | RTA22200241F.h.12.1.P.Seq | F           | M00026906:310 | CH04MAL   |
| 2263   | 63602   | RTA22200005F.g.11.1.P.Seq | F           | M00055888:25  | CH15CON   |
| 2264   | 2757    | RTA22200238F.l.07.1.P.Seq | F           | M00022973:77  | CH03MAH   |
| 2265   | 373128  | RTA22200020F.a.11.1.P.Seq | F           | M00054569:87  | CH17COHLV |
| 2266   | 641479  | RTA22200014F.l.16.2.P.Seq | F           | M00057007:212 | CH16COP   |
| 2267   | 450380  | RTA22200015F.b.12.1.P.Seq | F           | M00057049:85  | CH16COP   |
| 2268   | 133512  | RTA22200024F.i.12.1.P.Seq | F           | M00055209:18  | CH17COHLV |

Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
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| 2270   | 645222  | RTA22200013F.a.24.1.P.Seq | F           | M00056802:81  | CH16COP   |
| 2271   | 645222  | RTA22200013F.b.01.1.P.Seq | F           | M00056802:81  | CH16COP   |
| 2272   | 17372   | RTA22200002F.i.22.1.P.Seq | F           | M00055513:46  | CH15CON   |
| 2273   | 451619  | RTA22200025F.m.23.2.P.Seq | F           | M00055388:88  | CH17COHLV |
| 2274   | 2510    | RTA22200238F.m.21.1.P.Seq | F           | M00022995:52  | CH03MAH   |
| 2275   | 643974  | RTA22200007F.n.15.1.P.Seq | F           | M00056268:24  | CH15CON   |
| 2276   | 500630  | RTA22200013F.j.19.1.P.Seq | F           | M00056872:16  | CH16COP   |
| 2277   | 3101    | RTA22200225F.n.05.1.P.Seq | F           | M00005530:17  | CH02COH   |
| 2278   | 446938  | RTA22200004F.c.11.1.P.Seq | F           | M00055751:41  | CH15CON   |
| 2279   | 554469  | RTA22200013F.f.23.1.P.Seq | F           | M00056841:79  | CH16COP   |
| 2280   | 554469  | RTA22200003F.n.24.1.P.Seq | F           | M00055721:66  | CH15CON   |
| 2281   | 2894    | RTA22200016F.b.05.1.P.Seq | F           | M00057163:21  | CH16COP   |
| 2282   | 650600  | RTA22200008F.e.04.1.P.Seq | F           | M00056338:210 | CH15CON   |
| 2283   | 3101    | RTA22200226F.j.12.1.P.Seq | F           | M00005710:41  | CH02COH   |
| 2284   | 554469  | RTA22200003F.o.01.1.P.Seq | F           | M00055721:66  | CH15CON   |
| 2285   | 9910    | RTA22200236F.n.06.1.P.Seq | F           | M00022667:35  | CH03MAH   |
| 2286   | 400608  | RTA22200008F.g.03.1.P.Seq | F           | M00056460:711 | CH15CON   |
| 2287   | 555051  | RTA22200021F.o.07.2.P.Seq | F           | M00054854:58  | CH17COHLV |
| 2288   | 185400  | RTA22200002F.j.21.1.P.Seq | F           | M00055522:57  | CH15CON   |
| 2289   | 3059    | RTA22200233F.g.05.1.P.Seq | F           | M00008075:112 | CH03MAH   |
| 2290   | 647185  | RTA22200004F.b.20.1.P.Seq | F           | M00055747:49  | CH15CON   |
| 2291   | 1669    | RTA22200237F.p.19.1.P.Seq | F           | M00022853:311 | CH03MAH   |
| 2292   | 7158    | RTA22200232F.l.21.1.P.Seq | F           | M00022129:512 | CH03MAH   |
| 2293   | 496132  | RTA22200005F.d.06.1.P.Seq | F           | M00055871:76  | CH15CON   |
| 2294   | 378623  | RTA22200024F.k.20.1.P.Seq | F           | M00055227:52  | CH17COHLV |
| 2295   | 1257    | RTA22200227F.i.05.1.P.Seq | F           | M00006679:34  | CH02COH   |
| 2296   | 648499  | RTA22200012F.d.21.1.P.Seq | F           | M00056698:512 | CH16COP   |
| 2297   | 185627  | RTA22200242F.k.21.1.P.Seq | F           | M00027042:711 | CH04MAL   |
| 2298   | 640005  | RTA22200008F.c.15.1.P.Seq | F           | M00056312:33  | CH15CON   |
| 2299   | 553462  | RTA22200021F.e.14.3.P.Seq | F           | M00054750:412 | CH17COHLV |
| 2300   | 649852  | RTA22200002F.g.01.1.P.Seq | F           | M00055470:71  | CH15CON   |
| 2301   | 422375  | RTA22200018F.e.04.1.P.Seq | F           | M00043296:210 | CH17COHLV |
| 2302   | 10910   | RTA22200227F.n.22.1.P.Seq | F           | M00006745:42  | CH02COH   |
| 2303   | 2737    | RTA22200023F.c.21.1.P.Seq | F           | M00055034:71  | CH17COHLV |
| 2304   | 3438    | RTA22200225F.o.18.1.P.Seq | F           | M00005548:12  | CH02COH   |
| 2305   | 3438    | RTA22200228F.m.18.2.P.Seq | F           | M00006885:711 | CH02COH   |
| 2306   | 3763    | RTA22200225F.o.12.1.P.Seq | F           | M00005546:72  | CH02COH   |
| 2307   | 648966  | RTA22200007F.a.18.1.P.Seq | F           | M00056141:29  | CH15CON   |
| 2308   | 724339  | RTA22200013F.m.10.1.P.Seq | F           | M00056892:11  | CH16COP   |
| 2309   | 451569  | RTA22200018F.l.17.1.P.Seq | F           | M00043350:86  | CH17COHLV |
| 2310   | 554109  | RTA22200007F.d.17.1.P.Seq | F           | M00056171:812 | CH15CON   |
| 2311   | 380339  | RTA22200006F.h.10.2.P.Seq | F           | M00056055:17  | CH15CON   |
| 2312   | 729903  | RTA22200014F.g.06.1.P.Seq | F           | M00056966:111 | CH16COP   |
| 2313   | 45      | RTA22200025F.l.10.1.P.Seq | F           | M00055379:38  | CH17COHLV |
| 2314   | 454653  | RTA22200019F.d.21.1.P.Seq | F           | M00043503:55  | CH17COHLV |
| 2315   | 11536   | RTA22200237F.n.02.1.P.Seq | F           | M00022828:36  | CH03MAH   |
| 2316   | 373134  | RTA22200001F.h.02.1.P.Seq | F           | M00042711:34  | CH15CON   |
| 2317   | 185691  | RTA22200241F.g.04.1.P.Seq | F           | M00026900:32  | CH04MAL   |
| 2318   | 234761  | RTA22200011F.o.06.1.P.Seq | F           | M00056646:75  | CH16COP   |
| 2319   | 724339  | RTA22200012F.f.19.1.P.Seq | F           | M00056710:31  | CH16COP   |
| 2320   | 732740  | RTA22200016F.j.04.1.P.Seq | F           | M00057231:19  | CH16COP   |
| 2321   | 35895   | RTA22200017F.d.10.1.P.Seq | F           | M00057325:310 | CH16COP   |
| 2322   | 133512  | RTA22200018F.d.16.1.P.Seq | F           | M00042517:67  | CH17COHLV |

Table 1

Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY   |
|--------|---------|---------------------------|-------------|---------------|-----------|
| 2323   | 2974    | RTA22200227F.b.03.1.P.Seq | F           | M00006590:310 | CH02COH   |
| 2324   | 500     | RTA22200231F.l.13.1.P.Seq | F           | M00007983:43  | CH03MAH   |
| 2325   | 376919  | RTA22200020F.m.09.1.P.Seq | F           | M00054678:57  | CH17COHLV |
| 2326   | 8403    | RTA22200233F.g.08.1.P.Seq | F           | M00008076:62  | CH03MAH   |
| 2327   | 3643    | RTA22200227F.e.11.1.P.Seq | F           | M00006638:72  | CH02COH   |
| 2328   | 447211  | RTA22200001F.j.13.1.P.Seq | F           | M00042741:410 | CH15CON   |
| 2329   | 447211  | RTA22200001F.b.15.1.P.Seq | F           | M00042538:18  | CH15CON   |
| 2330   | 14929   | RTA22200025F.i.20.1.P.Seq | F           | M00055363:712 | CH17COHLV |
| 2331   | 648934  | RTA22200006F.k.14.2.P.Seq | F           | M00056081:29  | CH15CON   |
| 2332   | 731785  | RTA22200014F.j.11.2.P.Seq | F           | M00056993:43  | CH16COP   |
| 2333   | 639908  | RTA22200005F.g.08.1.P.Seq | F           | M00055887:54  | CH15CON   |
| 2334   | 344577  | RTA22200014F.m.20.1.P.Seq | F           | M00057015:312 | CH16COP   |
| 2335   | 2906    | RTA22200015F.m.13.1.P.Seq | F           | M00057127:611 | CH16COP   |
| 2336   | 446938  | RTA22200002F.c.18.1.P.Seq | F           | M00055445:76  | CH15CON   |
| 2337   | 2493    | RTA22200234F.h.08.1.P.Seq | F           | M00022251:19  | CH03MAH   |
| 2338   | 38      | RTA22200006F.o.08.2.P.Seq | F           | M00056112:82  | CH15CON   |
| 2339   | 13818   | RTA22200238F.e.13.1.P.Seq | F           | M00022898:64  | CH03MAH   |
| 2340   | 8371    | RTA22200229F.o.12.1.P.Seq | F           | M00007065:611 | CH02COH   |
| 2341   | 402494  | RTA22200012F.o.16.1.P.Seq | F           | M00056776:16  | CH16COP   |
| 2342   | 731785  | RTA22200014F.j.11.1.P.Seq | F           | M00056993:43  | CH16COP   |
| 2343   | 4621    | RTA22200235F.f.15.1.P.Seq | F           | M00022468:510 | CH03MAH   |
| 2344   | 9750    | RTA22200229F.g.23.1.P.Seq | F           | M00006979:210 | CH02COH   |
| 2345   | 133512  | RTA22200024F.p.23.1.P.Seq | F           | M00055263:79  | CH17COHLV |
| 2346   | 162626  | RTA22200250F.f.03.1.P.Seq | F           | M00027823:77  | CH04MAL   |
| 2347   | 730059  | RTA22200011F.a.20.1.P.Seq | F           | M00056530:41  | CH16COP   |
| 2348   | 2069    | RTA22200224F.k.12.1.P.Seq | F           | M00005373:86  | CH02COH   |
| 2349   | 5868    | RTA22200242F.i.17.1.P.Seq | F           | M00027030:38  | CH04MAL   |
| 2350   | 2683    | RTA22200226F.o.08.1.P.Seq | F           | M00005813:510 | CH02COH   |
| 2351   | 380409  | RTA22200012F.h.07.1.P.Seq | F           | M00056719:612 | CH16COP   |
| 2352   | 639991  | RTA22200002F.k.20.1.P.Seq | F           | M00055527:54  | CH15CON   |
| 2353   | 535     | RTA22200233F.a.19.1.P.Seq | F           | M00008015:210 | CH03MAH   |
| 2354   | 14929   | RTA22200025F.f.21.1.P.Seq | F           | M00055335:83  | CH17COHLV |
| 2355   | 134702  | RTA22200249F.n.23.1.P.Seq | F           | M00027733:45  | CH04MAL   |
| 2356   | 642477  | RTA22200004F.j.16.1.P.Seq | F           | M00055802:612 | CH15CON   |
| 2357   | 14929   | RTA22200014F.i.15.2.P.Seq | F           | M00056986:611 | CH16COP   |
| 2358   | 134702  | RTA22200241F.n.23.1.P.Seq | F           | M00026951:76  | CH04MAL   |
| 2359   | 185649  | RTA22200250F.g.08.1.P.Seq | F           | M00027833:41  | CH04MAL   |
| 2360   | 10702   | RTA22200241F.b.05.1.P.Seq | F           | M00026860:51  | CH04MAL   |
| 2361   | 643955  | RTA22200001F.k.21.1.P.Seq | F           | M00042886:33  | CH15CON   |
| 2362   | 643955  | RTA22200004F.p.19.1.P.Seq | F           | M00055841:29  | CH15CON   |
| 2363   | 4455    | RTA22200233F.o.08.1.P.Seq | F           | M00021670:75  | CH03MAH   |
| 2364   | 185567  | RTA22200242F.c.16.1.P.Seq | F           | M00026985:25  | CH04MAL   |
| 2365   | 9115    | RTA22200226F.e.04.1.P.Seq | F           | M00005632:82  | CH02COH   |
| 2366   | 14929   | RTA22200015F.i.12.1.P.Seq | F           | M00057100:59  | CH16COP   |
| 2367   | 14929   | RTA22200014F.i.15.1.P.Seq | F           | M00056986:611 | CH16COP   |
| 2368   | 4181    | RTA22200244F.k.18.1.P.Seq | F           | M00027203:88  | CH04MAL   |
| 2369   | 5206    | RTA22200238F.n.19.1.P.Seq | F           | M00023002:710 | CH03MAH   |
| 2370   | 825     | RTA22200237F.c.05.1.P.Seq | F           | M00022702:24  | CH03MAH   |
| 2371   | 825     | RTA22200238F.o.24.1.P.Seq | F           | M00023020:79  | CH03MAH   |
| 2372   | 825     | RTA22200231F.d.09.1.P.Seq | F           | M00007943:32  | CH03MAH   |
| 2373   | 2748    | RTA22200225F.d.18.1.P.Seq | F           | M00005449:510 | CH02COH   |
| 2374   | 2748    | RTA22200238F.i.02.1.P.Seq | F           | M00022934:23  | CH03MAH   |
| 2375   | 2748    | RTA22200225F.d.08.1.P.Seq | F           | M00005445:12  | CH02COH   |
| 2376   | 133512  | RTA22200014F.a.15.2.P.Seq | F           | M00056923:59  | CH16COP   |

Table 1



Table 1

| SEQ ID | CLUSTER | SEQ NAME                  | ORIENTATION | CLONE ID      | LIBRARY |
|--------|---------|---------------------------|-------------|---------------|---------|
| 2377   | 2748    | RTA22200237F.e.09.1.P.Seq | F           | M00022719:612 | CH03MAH |
| 2378   | 642477  | RTA22200008F.e.02.1.P.Seq | F           | M00056338:26  | CH15CON |
| 2379   | 642477  | RTA22200007F.n.16.1.P.Seq | F           | M00056268:41  | CH15CON |
| 2380   | 2493    | RTA22200236F.f.17.1.P.Seq | F           | M00022624:32  | CH03MAH |
| 2381   | 5796    | RTA22200235F.j.03.2.P.Seq | F           | M00022508:32  | CH03MAH |
| 2382   | 3782    | RTA22200236F.k.02.1.P.Seq | F           | M00022655:410 | CH03MAH |
| 2383   | 884     | RTA22200016F.b.01.1.P.Seq | F           | M00057162:82  | CH16COP |
| 2384   | 5860    | RTA22200238F.p.04.1.P.Seq | F           | M00023023:63  | CH03MAH |
| 2385   | 5275    | RTA22200226F.h.09.1.P.Seq | F           | M00005675:72  | CH02COH |
| 2386   | 3932    | RTA22200233F.l.12.1.P.Seq | F           | M00021626:34  | CH03MAH |
| 2387   | 884     | RTA22200017F.a.17.1.P.Seq | F           | M00057297:63  | CH16COP |
| 2388   | 4455    | RTA22200235F.j.23.2.P.Seq | F           | M00022517:53  | CH03MAH |
| 2389   | 5860    | RTA22200236F.c.15.1.P.Seq | F           | M00022598:45  | CH03MAH |
| 2390   | 5860    | RTA22200232F.m.23.1.P.Seq | F           | M00022143:310 | CH03MAH |
| 2391   | 372791  | RTA22200003F.o.02.1.P.Seq | F           | M00055721:55  | CH15CON |
| 2392   | 5206    | RTA22200238F.o.14.1.P.Seq | F           | M00023015:410 | CH03MAH |
| 2393   | 372791  | RTA22200005F.o.07.1.P.Seq | F           | M00055973:44  | CH15CON |
| 2394   | 2846    | RTA22200228F.l.12.2.P.Seq | F           | M00006873:512 | CH02COH |
| 2395   | 5275    | RTA22200225F.g.17.1.P.Seq | F           | M00005469:17  | CH02COH |
| 2396   | 2846    | RTA22200228F.i.21.2.P.Seq | F           | M00006852:37  | CH02COH |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 63     | 3236249   | (AC004684) hypothetical protein [Arabidopsis thaliana]  | 9.9     |
| 64     | 123111    | H-2 CLASS II HISTOCOMPATIBILITY ANTIGEN, GAMMA CHAIN (HLA-DR ANTIGENS ASSOCIATED INVARIANT CHAIN) >gi 92086 pir  S04362 class II histocompatibility antigen-associated gamma chain, long splice form - rat                        | 9.7     |
| 65     | 94377     | hypothetical protein 221 - turnip yellow mosaic virus   | 9.6     |
| 66     | 2736449   | (AF039047) contains similarity to the BPTI/kunitz family of inhibitors [Caenorhabditis elegans]   | 9.5     |
| 67     | 543894    | BETA-LACTAMASE PRECURSOR  | 8.2     |
| 68     | 3881525   | (Z70038) cDNA EST EMBL:D32579 comes from this gene; cDNA EST EMBL:D35254 comes from this gene; cDNA EST yk224b3.5 comes from this gene; cDNA EST yk357f10.5 comes from this gene  | 7.6     |
| 69     | 3128358   | (AF010496) ribose transport system permease protein RbsC  | 7.5     |
| 70     | 3875771   | (Z68297) Weak similarity to Mouse DNA-binding protein BMI-1 (SW:BMI1_MOUSE); cDNA EST EMBL:C07407 comes from this gene; cDNA EST EMBL:C07408 comes from this gene   | 7.3     |
| 71     | 21293     | (Y00759) 20 kDa protein (AA 1-212) [Spinacia oleracea]  | 7.3     |
| 72     | 2131007   | (Z95890) pknE [Mycobacterium tuberculosis]  | 7.2     |
| 73     | 245923    | (S83583) multiple-epitope polypeptide 1, MEP-1 construct]   | 7       |
| 74     | 115347    | PROCOLLAGEN ALPHA 2(IV) CHAIN PRECURSOR >gi 84486 pir  S16366 collagen alpha 2(IV) chain precursor - pig roundworm >gi 159649 (M67507) putative [Ascaris suum]  | 6.9     |
| 75     | 2072674   | (Z95120) rhlE [Mycobacterium tuberculosis]  | 5.8     |
| 76     | 807646    | (M17294) unknown protein [Human herpesvirus 4]  | 5.8     |
| 77     | 131706    | URIDINE 5'-MONOPHOSPHATE SYNTHASE OROTIDINE 5'-PHOSPHATE DECARBOXYLASE  | 5.6     |
| 78     | 631593    | glucose transport protein homolog - sheep   | 5       |
| 79     | 854064    | (X83413) U87 [Human herpesvirus 6]  | 4.8     |
| 80     | 484695    | vascular cell adhesion molecule 1 - human   | 4.2     |
| 81     | 1236146   | (U49864) fusI protein [Chlamydomonas reinhardtii]   | 3.8     |
| 82     | 1083846   | acetyl-CoA carboxylase (EC 6.4.1.2) - Cyclotella cryptica >gi 409450 (L20784) acetyl-CoA carboxylase [Cyclotella cryptica]  | 3.5     |
| 83     | 2245054   | (Z97342) protein kinase homolog   | 3.4     |
| 84     | 1717863   | UBIQUITIN-CONJUGATING ENZYME E2-21.2 KD (UBIQUITIN-PROTEIN LIGASE) (UBIQUITIN CARRIER PROTEIN) >gi 1077331 pir  S51438 probable membrane protein YLR306w -  | 3.4     |
| 85     | 1363331   | transcription factor IIIC alpha chain - rat alpha-subunit [Rattus   | 3.4     |
| 86     | 2736327   | (AF038615) No definition line found [Caenorhabditis elegans]  | 3.1     |
| 87     | 4587895   | (AF072509) glutamate receptor interacting protein 2 [Rattus   | 3.1     |
| 88     | 1480746   | (U62529) matrix metalloproteinase 3 [Equus caballus]  | 3       |
| 89     | 225858    | thyroid/steroid receptor related gene [Homo sapiens]  | 3       |
| 90     | 3861293   | (AJ235273) 3-OXOACYL-[ACYL-CARRIER-PROTEIN]   | 2.4     |
| 91     | 103812    | hypothetical protein 1 - zebra fish   | 2       |
| 92     | 3256583   | (AP000001) 361aa long hypothetical protein [Pyrococcus horikoshii]  | 1.7     |
| 93     | 1684985   | (U20633) NADH dehydrogenase subunit [Neuwiedia veratrifolia]  | 1.5     |
| 94     | 452517    | (D26361) KIAA0042 [Homo sapiens]  | 1.4     |
| 95     | 4218558   | (AJ011500) gra-orf26 [Streptomyces violaceoruber]   | 1.1     |
| 96     | 4539280   | (AL049498) putative transcription factor  | 0.28    |
| 97     | 4539280   | (AL049498) putative transcription factor  | 0.26    |
| 98     | 3881842   | (Z78201) Similarity to E.coli 2-oxoglutarate dehydrogenase (SW:ODO1_ECOLI); cDNA EST EMBL:D32590 comes from this gene; cDNA EST EMBL:D32841 comes from this gene; cDNA EST EMBL:D34051 comes from this gene; cDNA EST EMBL:D35268 | 4e-019  |
| 99     | 4102877   | (AF017152) Shc binding protein [Mus musculus]   | 6e-050  |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 100    | 3327062   | (AB014524) KIAA0624 protein [Homo sapiens]   | 5e-050  |
| 102    | 3126979   | (AF062483) SDP3 [Homo sapiens]   | 6.1     |
| 103    | 3930776   | (AF099149) TRIAD1 type I [Homo sapiens]  | 9e-068  |
| 106    | 2708741   | (AC003952) hypothetical protein [Arabidopsis thaliana]   | 3.6     |
| 107    | 733554    | (U23450) similar to RNA-binding protein [Caenorhabditis elegans]   | 1e-014  |
| 108    | 3851703   | (AF100421) p80 [Rattus norvegicus]   | 7e-055  |
| 112    | 2120729   | GumG protein - Xanthomonas campestris  | 6       |
| 120    | 3334526   | (AL021306) predicted using FGENEH [Homo sapiens]   | 7.7     |
| 121    | 2407956   | (X87612) mono ATP-ribosyltransferase [Mus musculus]  | 5.9     |
| 122    | 3877701   | (Z69662) predicted using Genefinder; similar to collagen; cDNA EST EMBL:D75049 comes from this gene; cDNA EST EMBL:D72067 comes from this gene; cDNA EST EMBL:D72223 comes from this gene; cDNA EST EMBL:D72768 comes from this                      | 5.9     |
| 123    | 2117780   | serine/threonine protein kinase - quail  | 3.5     |
| 124    | 1722738   | MINOR CAPSID PROTEIN L2 >gi 1020224 type 36]   | 3.4     |
| 125    | 2494448   | HYPOTHETICAL PROTEIN MJ0208 Methanococcus jannaschii >gi 1498983 (U67476) 4Fe-4S iron-sulfur protein [Methanococcus  | 3.4     |
| 126    | 2494294   | NEUROGENIC LOCUS NOTCH 3 PROTEIN (AL034559) predicted using hexExon; MAL3P7.11 (PFC0910w),   | 3.4     |
| 127    | 4493971   | Hypothetical protein, len: 430 aa  | 0.61    |
| 138    | 3025005   | HYPOTHETICAL 28.8 KD PROTEIN IN MOAE-RHLE INTERGENIC REGION >gi 1787008 (AE000181) orf, hypothetical   | 9.8     |
| 139    | 3881856   | (Z79759) Similarity to Yeast endosomal P24A protein (SW:EM70_YEAST); cDNA EST CEMSB40F comes from this gene; cDNA EST EMBL:C13538 comes from this gene; cDNA EST   | 9.6     |
| 140    | 1945493   | (U56965) Similar to NAD(P) transhydrogenase, mitochondrial; coded for by C. elegans cDNA yk27c1.5; coded for by C. elegans cDNA yk35b9.5; coded for by C. elegans cDNA yk35b9.3; coded for by C. elegans cDNA yk161c9.3; coded for by C. elegans ... | 5.6     |
| 141    | 3746071   | (AC005311) putative GTP-binding protein [Arabidopsis thaliana]   | 5.6     |
| 142    | 2088843   | (AF003386) F59E12.9 gene product [Caenorhabditis elegans]  | 3.2     |
| 143    | 1706551   | GLUCAN ENDO-1,3-BETA-GLUCOSIDASE PRECURSOR ((1->3)-BETA-GLUCAN ENDOHYDROLASE) aestivum]  | 1.9     |
| 144    | 629778    | chitinase (EC 3.2.1.14) - barley vulgare]  | 1.9     |
| 145    | 2791276   | (Z95327) Cleavage Stimulation Factor sapiens]  | 0.85    |
| 146    | 736767    | helper component protease [Turnip mosaic virus]  | 0.5     |
| 147    | 1731209   | HYPOTHETICAL 35.4 KD PROTEIN CY20G9.19C >gi 1449291 emb CAB00954  (Z77162) hypothetical protein  | 0.22    |
| 148    | 3877063   | (Z37092) F44F4.10 [Caenorhabditis elegans]   | 0.075   |
| 149    | 3878739   | (Z73428) similar to Zinc finger, C3HC4 type (RING finger); cDNA EST EMBL:D67323 comes from this gene [Caenorhabditis elegans] >gi 3881096 emb CAB16481  finger); cDNA EST EMBL:D67323 comes from this gene   | 2e-029  |
| 159    | 4454483   | (AC006234) putative kinase, 5' partial   | 9.1     |
| 160    | 3044086   | (AF055904) unknown [Myxococcus xanthus]  | 5.4     |
| 161    | 1945493   | (U56965) Similar to NAD(P) transhydrogenase, mitochondrial; coded for by C. elegans cDNA yk27c1.5; coded for by C. elegans cDNA yk35b9.5; coded for by C. elegans cDNA yk35b9.3; coded for by C. elegans cDNA yk161c9.3; coded for by C. elegans ... | 5.4     |
| 162    | 730883    | SYNAPTIC VESICLE PROTEIN 2 (SV2) norvegicus]   | 5.4     |
| 163    | 2351212   | (D88386) gag-pol polyprotein (precursor protein) [Friend murine leukemia virus]  | 4.2     |
| 164    | 1722738   | MINOR CAPSID PROTEIN L2 >gi 1020224 type 36]   | 3.2     |



Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 165    | 4115922   | (AF118222) contains similarity to ubiquitin carboxyl-terminal hydrolase family 2 (Pfam:PF00443, score=48.3, E=3.5e-13, N=2) and (Pfam:PF00442, Score=40.0 E=5.2e-08, N=1) [Arabidopsis   | 2.4     |
| 166    | 1351639   | VERY HYPOTHETICAL 52.7 KD PROTEIN C8A4.05C IN CHROMOSOME I >gi 2130446 pir S62521 hypothetical protein   | 2.4     |
| 167    | 4506857   | small inducible cytokine subfamily D (Cys-X3-Cys), member 1 (fractalkine, neurotactin) >gi 1888523 (U84487) CX3C chemokine precursor [Homo sapiens] >gi 1899259 (U91835) CX3C chemokine  | 2.4     |
| 168    | 4505637   | protocadherin 8; PCDH8 sapiens]  | 1.9     |
| 169    | 3249055   | (AF071210) casein kinase II alpha subunit [Spodoptera frugiperda]  | 1.4     |
| 170    | 854065    | (X83413) U88 [Human herpesvirus 6]   | 1e-005  |
| 171    | 854065    | (X83413) U88 [Human herpesvirus 6]   | 1e-005  |
| 191    | 3150072   | (AF046996) preS1 surface protein [woolly monkey hepatitis B Virus]   | 6.9     |
| 192    | 2622845   | (AE000928) corrinoid/iron-sulfur protein, large subunit  | 6.9     |
| 193    | 1083554   | tyrosine phosphoprotein SLP-76 - mouse   | 6.9     |
| 194    | 1708868   | LOW-DENSITY LIPOPROTEIN RECEPTOR-RELATED PROTEIN PRECURSOR (LRP) Caenorhabditis elegans >gi 156360 (M96150) LDL receptor-related protein [Caenorhabditis elegans] Genefinder; Identity to C.elegans Low density lipid (LDL) receptor- (AL023702) putative insertion element IS1647 transposase | 5.2     |
| 195    | 3169030   | [Streptomyces coelicolor]  | 4       |
| 196    | 728835    | !!!! ALU SUBFAMILY SC WARNING ENTRY  | 4       |
| 197    | 484695    | vascular cell adhesion molecule 1 - human  | 3.9     |
| 198    | 2204102   | (Y13898) glutathione-S-transferase   | 3.9     |
| 199    | 1118071   | (U41554) coded for by C. elegans cDNA yk38a7.3; coded for by C. elegans cDNA yk8c6.3; coded for by C. elegans cDNA yk25d12.5; coded for by C. elegans cDNA yk25d12.3; coded for by C. elegans cDNA yk8c6.5; coded for by C. elegans cDNA yk7f8.5;...   | 2.3     |
| 200    | 799146    | (U24495) 2a protein [Broad bean mottle virus]  | 1.4     |
| 201    | 73416     | E2 protein - human papillomavirus type 18 papillomavirus type 18]  | 1.4     |
| 202    | 294529    | (L14933) convertase PC5 [Rattus norvegicus]  | 0.45    |
| 203    | 124141    | TRANS-ACTING TRANSCRIPTIONAL PROTEIN ICP4 (TRANSCRIPTIONAL ACTIVATOR IE175) (ALPHA-4 PROTEIN) human herpesvirus 1 >gi 59558 emb CAA32286  (X14112) RS1 RS1 [human herpesvirus 1] >gi 59849 emb CAA29763  1298) [human herpesvirus 1]   | 0.031   |
| 204    | 4503511   | UNKNOWN >gi 3264861 (U97670) eukaryotic translation initiation factor eIF3, p35 subunit [Homo sapiens]   | 3e-010  |
| 205    | 4503511   | UNKNOWN >gi 3264861 (U97670) eukaryotic translation initiation factor eIF3, p35 subunit [Homo sapiens]   | 3e-010  |
| 206    | 3298605   | (AF057365) UDP N-acetylglucosamine transporter [Canis familiaris]  | 8e-033  |
| 221    | 3116148   | (AL023290) putative ATP-dependent RNA helicase [Schizosaccharomyces pombe]   | 8.7     |
| 222    | 4544400   | (AC007047) hypothetical protein [Arabidopsis thaliana]   | 8.7     |
| 223    | 1086982   | E1 replication protein [bovine papillomavirus type 1 BPV-1, Peptide,   | 8.6     |
| 224    | 1762434   | (U59924) nitric oxide synthase [Sus scrofa]  | 8.6     |
| 225    | 731689    | HYPOTHETICAL 433.2 KD PROTEIN IN HXT5-NRK1 INTERGENIC REGION >gi 626646 pir S46715 hypothetical protein YHR099w - yeast (Saccharomyces cerevisiae) >gi 487929 (U00060)   | 8.5     |
| 226    | 2351132   | (D85200) S glycoprotein [Brassica oleracea]  | 8.5     |
| 227    | 1762434   | (U59924) nitric oxide synthase [Sus scrofa]  | 8.5     |
| 228    | 4493995   | (AL034559) predicted using hexExon; MAL3P7.47 (PFC1080c), Hypothetical protein, len: 232 aa  | 6.7     |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 229    | 462685    | NUCLEOCAPSID PROTEIN coronavirus (strain K378)<br>>gi 58850 emb CAA47246  | 5.2     |
| 230    | 4519268   | (AB024314) CREA [ <i>Aspergillus aculeatus</i> ]  | 5       |
| 231    | 1364138   | probable polymerase - soybean dwarf virus polymerase [Soybean]  | 5       |
| 232    | 1709938   | ADENYLOSUCCINATE SYNTHETASE adenylosuccinate synthase<br>(EC 6.3.4.4) - <i>Thiobacillus ferrooxidans</i> >gi 48168 emb CAA40593 <br>(X57324) purA adenylosuccinate synthetase [ <i>Thiobacillus</i><br>(AF000262) the second exon has similarity to collagen alpha in a<br>glycine- and proline-rich region           | 3.8     |
| 233    | 1947132   | (Z97342) protein kinase homolog   | 2.9     |
| 234    | 2245054   | (AF039052) contains similarity to helicases   | 2.9     |
| 235    | 2736517   | (U42580) a499L [ <i>Paramecium bursaria</i> Chlorella virus 1]  | 1.7     |
| 236    | 1620170   | (AF104031) caudal-related homeobox protein  | 1.7     |
| 237    | 4336718   | BETA-GLUCOSIDASE A (GENTIOBIASE) 3.2.1.21) -<br><i>Caldicellum saccharolyticum</i> 1-455) [ <i>Caldicellulosiruptor</i>   | 1.3     |
| 238    | 114969    | HOMEBOX PROTEIN CDX-1 (CAUDAL-TYPE HOMEBOX<br>PROTEIN 1) >gi 1083361 pir A49303 homeotic protein Cdx-1 -<br>(U44834) polyphosphate glucokinase [ <i>Mycobacterium tuberculosis</i> ]<br>>gi 1588398 prf 2208389A phosphate glucokinase [ <i>Mycobacterium</i>   | 0.76    |
| 239    | 1170313   | (AJ002303) synaptogyrin 1c [ <i>Homo sapiens</i> ]  | 0.44    |
| 258    | 1172222   | (AE000721) cation efflux system (czcD-like) [ <i>Aquifex aeolicus</i> ]   | 8.4     |
| 259    | 2959862   | nicotinic acetylcholine receptor alpha-5 chain precursor - chicken<br>(Z78013) predicted using Genefinder; cDNA EST EMBL:D72806<br>comes from this gene; cDNA EST EMBL:D75743 comes from this<br>gene; cDNA EST yk417b6.3 comes from this gene; cDNA EST<br>yk417b6.5 comes from this gene; cDNA EST yk276c6.3 com... | 8.1     |
| 260    | 2983552   | (U23511) No definition line found [ <i>Caenorhabditis elegans</i> ]   | 8       |
| 261    | 104800    | (U90333) aquarius gene product [ <i>Mus musculus</i> ]  | 4.8     |
| 262    | 3875957   | AFLATOXIN BIOSYNTHESIS REGULATORY PROTEIN   | 4.7     |
| 263    | 746475    | NUCLEOLYSIN TIAR (TIA-1 RELATED PROTEIN) >gi 1592563<br>(U55861) RNA binding protein TIAR   | 2.8     |
| 264    | 1899232   | leukocyte common antigen precursor - mouse musculus]  | 2.8     |
| 265    | 3123186   | (AL021635) predicted protein [ <i>Arabidopsis thaliana</i> ]  | 1.7     |
| 266    | 2500589   | (AF096372) No definition line found [ <i>Arabidopsis thaliana</i> ]   | 1.6     |
| 267    | 90253     | (AB006629) KIAA0291 [ <i>Homo sapiens</i> ]   | 0.42    |
| 268    | 2827553   | (AB007918) KIAA0449 protein [ <i>Homo sapiens</i> ]   | 8e-006  |
| 269    | 3695397   | (AF070661) HSPC005 [ <i>Homo sapiens</i> ]  | 3e-009  |
| 270    | 2564330   | PROBABLE PROCESSING AND TRANSPORT PROTEIN<br>(INFECTED CELL PROTEIN 18.5) murine cytomegalovirus (strain  | 1e-010  |
| 271    | 3413860   | (Y13898) glutathione-S-transferase  | 6       |
| 272    | 4454698   | (AJ002140) DNA  | 3.5     |
| 289    | 266328    | (AC007119) hypothetical protein   | 3.5     |
| 290    | 2204102   | (AB003348) E1 protein [Rubella virus]   | 3.1     |
| 291    | 2887280   | (L40021) polyprotein [Feline calicivirus]   | 9.9     |
| 292    | 4567223   | PROBABLE PROCESSING AND TRANSPORT PROTEIN<br>(INFECTED CELL PROTEIN 18.5) murine cytomegalovirus (strain  | 7.3     |
| 303    | 2077849   | homeotic protein bicoid - fruit fly pseudoobscura]  | 5.6     |
| 304    | 845311    | (Y13898) glutathione-S-transferase  | 5.6     |
| 305    | 266328    | HOMOSERINE KINASE (HK) <i>Pseudomonas aeruginosa</i><br>>gi 45425 emb CAA46169  (X65034) homoserine kinase<br>[ <i>Pseudomonas aeruginosa</i> ]   | 3.3     |
| 306    | 103469    | (AF015560) RO11 [ <i>Neurospora crassa</i> ]  | 3.3     |
| 307    | 2204102   | vascular cell adhesion molecule 1 - human   | 0.66    |
| 308    | 125394    |   | 0.64    |
| 309    | 2353163   |   |         |
| 310    | 484695    |   |         |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 311    | 3874146   | (Z72502) Similarity with proline-rich proteoglycan (PIR accession number B48013); cDNA EST EMBL:D66054 comes from this gene; cDNA EST EMBL:D69700 comes from this gene; cDNA EST yk446b10.3 comes from this gene; cDNA EST yk446b10... | 0.52    |
| 312    | 117589    | CIRCUMSPOROZOITE PROTEIN PRECURSOR precursor - Plasmodium knowlesi (strain Nuri) >gi 160198  | 9e-005  |
| 313    | 2781381   | (AC004013) Similar to rabbit A-kinase-anchoring protein sapiens]   | 1e-019  |
| 317    | 730269    | PAN1 PROTEIN >gi 626783 pir  S48440 poly(A)-specific ribonuclease (EC 3.1.13.4) - yeast PAN1_YEAST P32521 PAB-DEPENDENT POLY(A)-SPECIFIC RIBONUCLEASE but  | 7.2     |
| 318    | 3201610   | (AC004669) unknown protein [Arabidopsis thaliana]  | 5.4     |
| 319    | 3129975   | (AL023516) Complement C4 [Gallus gallus]   | 2.4     |
| 322    | 1850592   | (U88295) carnitine palmitoyltransferase II [Rattus norvegicus]   | 6.9     |
| 323    | 3881650   | (Z70757) Weak similarity to the XFIN protein (Swiss Prot accession number P08045)  | 6.6     |
| 324    | 2653998   | (AF032884) tnsC [Thiobacillus ferrooxidans]  | 8.2     |
| 326    | 145111    | (M18083) periplasmic [NiFe]hydrogenase protein small subunit precursor [Desulfovibrio gigas]   | 0.37    |
| 327    | 2244839   | (Z97337) hypothetical protein [Arabidopsis thaliana]   | 3.1     |
| 328    | 3935180   | (AC004557) F17L21.23 [Arabidopsis thaliana]  | 4.6     |
| 332    | 3328899   | (AE001320) hypothetical protein [Chlamydia trachomatis]  | 7.4     |
| 333    | 4096264   | (U26528) Ig heavy chain [Oryctolagus cuniculus]  | 7.1     |
| 334    | 3023209   | 168 KD SURFACE-LAYER PROTEIN PRECURSOR [CONTAINS: 120 KD SURFACE-EXPOSED PROTEIN MEMBRANE PROTEIN OMPB]; 32 KD BETA PEPTIDE] precursor - Rickettsia typhi >gi 1871223 (L04661) crystalline surface                                     | 5.8     |
| 335    | 4589400   | (AB009958) polyprotein [satsuma dwarf virus]   | 5.7     |
| 336    | 1709356   | SODIUM-DEPENDENT NORADRENALINE TRANSPORTER (NOREPINEPHRINE TRANSPORTER) (NET) bovine >gi 1050439 emb CAA55645  (X79015) norepinephrine transporter   | 5.4     |
| 337    | 4512671   | (AC006931) unknown protein [Arabidopsis thaliana]  | 1.9     |
| 343    | 3757516   | (AC005167) putative TMV resistance protein [Arabidopsis thaliana]  | 3.8     |
| 344    | 586480    | HYPOTHETICAL 62.6 KD PROTEIN IN CDS1-RPL2 INTERGENIC REGION >gi 626496 pir  S45886 hypothetical protein YBR030w - yeast (Saccharomyces cerevisiae)   | 0.26    |
| 345    | 423981    | 88K E-26-specific domain protein Pok - Drosophila >gi 217342 dbj BAA01080  (D10228) Ets domain protein   | 0.054   |
| 347    | 1653153   | (D90911) acriflavin resistance protein   | 5.5     |
| 348    | 2147342   | E4 protein - human papillomavirus type 14D   | 0.67    |
| 349    | 3914412   | GENOME POLYPROTEIN [CONTAINS: N-TERMINAL PROTEIN (P1); HELPER COMPONENT PROTEINASE INCLUSION PROTEIN (CI); 6 KD PROTEIN 2 (6K2); GENOME-LINKED PROTEIN (VPG); NUCLEA... mosaic virus]  | 0.95    |
| 350    | 2997741   | (AF054838) tetraspan TM4SF; Tspan-1 [Homo sapiens]   | 1e-017  |
| 351    | 1086900   | (U41278) contains similarity to G beta repeats   | 3e-027  |
| 372    | 129036    | 2-OXOGLUTARATE DEHYDROGENASE E1 COMPONENT (ALPHA-KETOGLUTARATE DEHYDROGENASE) dehydrogenase [Azotobacter vinelandii]   | 9.8     |
| 373    | 2120777   | cellulose synthase - Agrobacterium tumefaciens >gi 710493 (L38609) cellulose synthase celA gene [Agrobacterium tumefaciens]  | 9.7     |
| 374    | 628527    | hypothetical protein - Pseudomonas syringae syringae]  | 9.6     |
| 375    | 123395    | HOMEBOX PROTEIN NK-1 (S59/2) fly (Drosophila melanogaster) >gi 8531 emb CAA39067  sp.]   | 7.8     |
| 376    | 3722000   | (AF035323) survival motor neuron protein   | 7.8     |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 377    | 3881030   | (AL021493) Y51A2B.2 [Caenorhabditis elegans]  | 7.4     |
| 378    | 4505777   | PHD finger protein 1 >gi 2660720 1 [Homo sapiens]   | 6       |
| 379    | 2190501   | (X53706) immunoglobulin alpha-2 heavy chain [Pan troglodytes]   | 5.8     |
| 380    | 2688643   | (AE001171) conserved hypothetical integral membrane protein [Borrelia burgdorferi]  | 5.7     |
| 381    | 1086832   | (U41264) coded for by C. elegans cDNA cm13g1; Similar to bumetanide-sensitive Na-K-Cl cotransporter.  | 5.4     |
| 382    | 1931639   | (U95973) lysophospholipase isolog [Arabidopsis thaliana]  | 4.6     |
| 383    | 3757516   | (AC005167) putative TMV resistance protein [Arabidopsis thaliana]   | 4.5     |
| 384    | 4504567   | interferon consensus sequence binding protein 1 >gi 2275153 (M91196) DNA-binding protein [Homo sapiens]   | 4.4     |
| 385    | 464822    | SUR1 PROTEIN >gi 542362 pir  S41798 SUR1 protein - yeast (Saccharomyces cerevisiae) cerevisiae >gi 976268 dbj BAA05628  | 4.4     |
| 386    | 3023738   | EXOSTOSIN-L (MULTIPLE EXOSTOSIS-LIKE PROTEIN) >gi 1524413 (U67191) multiple exostosis-like protein [Homo]   | 4.3     |
| 387    | 3878603   | (Z83116) M01B2.3 [Caenorhabditis elegans]   | 3.4     |
| 388    | 3745858   | (L33180) BRO-a [Bombyx mori nuclear polyhedrosis virus]   | 3.3     |
| 389    | 4321758   | (AF060669) polyprotein [Hepatitis E virus]  | 3.3     |
| 390    | 2661037   | (AF035285) dihydroxyacetone phosphate acyltransferase   | 3.3     |
| 391    | 2950355   | (AJ223300) homebox protein DRx [Drosophila melanogaster]  | 2.7     |
| 392    | 3821973   | (AF061140) merozoite surface protein 1 [Plasmodium falciparum]  | 2.5     |
| 393    | 1552187   | (D84375) ORF3 [Oryzias latipes]   | 2       |
| 394    | 2493417   | S100 CALCIUM-BINDING PROTEIN A13 calcium-binding protein A13 [Mus musculus]   | 1.6     |
| 395    | 3550082   | (AF071186) WW domain binding protein 11 [Mus musculus]  | 1.5     |
| 396    | 1082665   | oligodendrocyte-specific proline-rich protein 2 - human >gi 1408050 dbj BAA05660  (D28114) MOBP [Homo sapiens]  | 1.5     |
| 397    | 3874925   | (Z68296) Similarity to Mouse A-RAF proto-oncogene serine/threonine-protein kinase gene; cDNA EST EMBL:T01018 comes from this gene; cDNA EST EMBL:D33256 comes from this | 1.2     |
| 398    | 2500886   | PROBABLE SIGNAL RECOGNITION 54 KD PROTEIN (SRP54) >gi 2129283 pir  E64312 signal recognition particle protein - Methanococcus jannaschii subunit SRP54 [Methanococcus]  | 1.2     |
| 399    | 2291241   | (AF016428) contains similarity to Vaccinia virus 37 kd envelope protein [Caenorhabditis elegans]  | 1.1     |
| 400    | 309958    | (L06798) class D tetracycline/H+ antiporter [Plasmid pRA1] >gi 575937 dbj BAA03719  (D16172) PP-TETA protein  | 0.91    |
| 401    | 3877379   | (Z46267) F49E2.2 [Caenorhabditis elegans]   | 0.39    |
| 402    | 4539280   | (AL049498) putative transcription factor  | 0.29    |
| 403    | 3293235   | (U96413) putative opine synthase [Agrobacterium tumefaciens]  | 0.097   |
| 404    | 3329636   | (AF078786) No definition line found [Caenorhabditis elegans]  | 0.003   |
| 405    | 3947614   | (AL023828) cDNA EST yk491f8.5 comes from this gene [Caenorhabditis elegans]   | 8e-019  |
| 406    | 3947614   | (AL023828) cDNA EST yk491f8.5 comes from this gene [Caenorhabditis elegans]   | 1e-019  |
| 407    | 3880930   | (AL021481) similar to Phosphoglucomutase and phosphomannomutase phosphoserine; cDNA EST EMBL:D36168 comes from this gene; cDNA EST EMBL:D70697 comes from this          | 1e-022  |
| 408    | 3184082   | gene; cDNA EST yk373h9.5 comes from this gene; cDNA EST (AL023781) N-terminal acetyltransferase 1   | 1e-028  |
| 409    | 2500558   | PUTATIVE RIBONUCLEASE III (RNASE III) >gi 3876420 emb CAB03005  (Z81070) similar to ribonuclease  | 7e-030  |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 410    | 3877493   | (Z48583) similar to ATPases associated with various cellular activities (AAA); cDNA EST EMBL:Z14623 comes from this gene; cDNA EST EMBL:D75090 comes from this gene; cDNA EST EMBL:D72255 comes from this gene; cDNA EST yk200e4.5 ...                          | 5e-044  |
| 411    | 3298605   | (AF057365) UDP N-acetylglucosamine transporter [Canis familiaris]   | 1e-051  |
| 412    | 4103604   | (AF026031) putative mitochondrial outer membrane protein import receptor [Homo sapiens]   | 1e-059  |
| 413    | 2662165   | (AB007902) HH0712 cDNA clone for KIAA0442 has a 574-bp insertion at position 1474 of the sequence of KIAA0442. [Homo  | 4e-070  |
| 414    | 3882145   | (AB018255) KIAA0712 protein [Homo sapiens]  | 9e-072  |
| 477    | 117552    | CHAPERONE PROTEIN CS3-1 PRECURSOR Escherichia coli >gi 41156 emb CAA34815  (X16944) 27kD protein (AA 1 to 241) [Escherichia coli]   | 9.3     |
| 478    | 2983622   | (AE000726) hypothetical protein [Aquifex aeolicus]  | 9.3     |
| 479    | 2088694   | (AF003135) W03F11.1 gene product [Caenorhabditis elegans]   | 9.3     |
| 480    | 4240237   | (AB020681) KIAA0874 protein [Homo sapiens]  | 9.2     |
| 481    | 1864073   | (U63002) T-cell receptor beta chain [Callithrix jacchus]  | 9       |
| 482    | 2147334   | DNA helicase II 70K chain homolog - Rhipicephalus appendiculatus >gi 1063592 (L41356) ku autoantigen p70 homologue [Rhipicephalus appendiculatus]   | 8.9     |
| 483    | 3323145   | (AE001253) T. pallidum predicted coding region TP0827   | 8.7     |
| 484    | 2183251   | (AF002227) putative polyprotein [border disease virus strain C413]  | 8.6     |
| 485    | 3875768   | (Z92830) cDNA EST yk223c7.5 comes from this gene; cDNA EST yk307b2.5 comes from this gene; cDNA EST yk377h2.5 comes from this gene; cDNA EST yk223c7.3 comes from this gene; cDNA EST yk307b2.3 comes from this gene [Caenorhabditi...                          | 8.6     |
| 486    | 1351589   | HYPOTHETICAL PROTEIN MG456 Mycoplasma genitalium (SGC3) >gi 1046175 (U39732) M. genitalium predicted coding region MG456 [Mycoplasma genitalium] >gi 3845050 (U39727) conserved hypothetical protein [Mycoplasma genitalium]                                    | 8.4     |
| 487    | 3023800   | GLUCOSE-6-PHOSPHATASE (G6PASE) familiaris]  | 6.9     |
| 488    | 450722    | (X71982) ORF j11R [African swine fever virus]   | 6.8     |
| 489    | 2633756   | (Z99111) similar to heavy metal-transporting ATPase [Bacillus   | 6.6     |
| 490    | 4049887   | (AF063866) ORF MSV024 ALI motif gene family protein abdominal-A homeodomain protein - Junonia coenia >gi 797277 (L41931) abdominal-A homeodomain protein [Junonia coenia]   | 5.3     |
| 491    | 1363994   | (Z98944) hypothetical protein   | 5.3     |
| 492    | 2370493   | (Z98944) hypothetical protein   | 5.3     |
| 493    | 140631    | HYPOTHETICAL 25.9 KD PROTEIN FP25.9 [Fowlpox virus]   | 5.3     |
| 494    | 400927    | RIBONUCLEOPROTEIN RB97D ribonucleoprotein [Drosophila   | 5.1     |
| 495    | 2462935   | (Y12321) open reading frame 1 [Brassica oleracea]   | 5       |
| 496    | 2160189   | (AC000132) Similar to A. thaliana receptor-like protein kinase (gb RLK5_ARATH). ESTs gb ATTS0475,gb ATTS4362 come from this gene. [Arabidopsis thaliana]  | 5       |
| 497    | 1850972   | (U84144) putative fimbrial chaperone [Escherichia coli]   | 4.9     |
| 498    | 2145678   | B1549_C3_230 protein - Mycobacterium leprae   | 4.2     |
| 499    | 3182952   | CGMP-INHIBITED 3',5'-CYCLIC PHOSPHODIESTERASE A (CYCLIC GMP INHIBITED PHOSPHODIESTERASE A) (CGI-PDE A) >gi 1145304 (U38179) cyclic nucleotide phosphodiesterase (AL034358) predicted using hexExon; L4830.1, Hypothetical protein, len: 1107 [Leishmania major] | 4.2     |
| 500    | 4493738   | PUTATIVE POLYKETIDE SYNTHASE PKSL 2.3.1.-) - Bacillus subtilis >gi 40058 emb CAA78479  subtilis] >gi 528996 (U11039) polyketide synthase polyketide synthase of type I [Bacillus subtilis]  | 4.2     |
| 501    | 730336    | (M19720) L-myc protein [Homo sapiens]   | 4       |
| 502    | 188908    |   |         |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 503    | 4056436   | (AC005990) EST gb AA650912 comes from this gene.  | 3.9     |
| 504    | 3874349   | (Z81035) predicted using Genefinder; Similarity to Sheep vasopressin V1A receptor (SW:P48043)   | 3.9     |
| 505    | 3874067   | (Z93374) similar to 7TM receptor elegans]   | 3.9     |
| 506    | 3979818   | (Z49967) cDNA EST EMBL:T00743 comes from this gene; cDNA EST EMBL:D69356 comes from this gene; cDNA EST EMBL:D65790 comes from this gene; cDNA EST EMBL:D70463 comes from this gene; cDNA EST EMBL:D66620 comes from this       | 3.2     |
| 507    | 119462    | ENVELOPE POLYPROTEIN GP160 PRECURSOR 2]   | 3.2     |
| 508    | 117657    | >gi 225570 prf 1306388H gene env [Human immunodeficiency virus COLICIN V PRODUCTION PROTEIN (DEDE PROTEIN) (PUR REGULON 18 KD PROTEIN) colicin V production [Escherichia coli] dedE protein [Escherichia coli]                  | 3.1     |
| 509    | 114441    | ATP SYNTHASE A CHAIN (PROTEIN 6) 3.6.1.34) protein 6 - fruit fly (Drosophila yakuba) mitochondrion (SGC4)   | 3       |
| 510    | 1280094   | >gi 12921 emb CAA25442  (X00924) ATPase subunit 6 [Drosophila (U55369) No definition line found [Caenorhabditis elegans]  | 3       |
| 511    | 226131    | thyroid hormone receptor alpha 2 [Rattus norvegicus]  | 3       |
| 512    | 3860855   | (AJ235271) GUANOSINE PENTAPHOSPHATE PHOSPHOHYDROLASE (gppA) [Rickettsia prowazekii]   | 2.9     |
| 513    | 584834    | CELLULOSE SYNTHASE OPERON C PROTEIN xylinus]  | 2.4     |
| 514    | 629777    | >gi 1090660 prf 2019362C acsC gene  | 2.2     |
| 515    | 2555183   | chitinase (EC 3.2.1.14) - barley vulgare]   | 2.2     |
| 516    | 4503737   | (AF026504) SPA-1 like protein p1294 [Rattus norvegicus]   | 1.8     |
| 517    | 3790719   | forkhead (Drosophila) homolog 1 HEAD DOMAIN PROTEIN FKHR >gi 631145 pir S40521 FKHR protein - human >gi 435423 (U02310) fork head domain protein [Homo sapiens]   | 1.8     |
| 518    | 1785942   | >gi 737918 prf 1923399A FKHR gene [Homo sapiens]  | 1.8     |
| 519    | 3877036   | (AF099916) contains similarity to C2H2-type zinc fingers  | 1.4     |
| 520    | 281654    | (U83412) CAG [Drosophila melanogaster]  | 1.3     |
| 521    | 114972    | (Z81079) predicted using Genefinder; similar to collagen; cDNA EST EMBL:M88890 comes from this gene; cDNA EST EMBL:Z14325 comes from this gene; cDNA EST EMBL:D27520 comes from this gene; cDNA EST EMBL:D72240 comes from this | 1.3     |
| 522    | 1707085   | hypothetical protein 24 - Agrobacterium tumefaciens plasmid pTi15955 >gi 39086 emb CAA25186  tumefaciens]   | 1.3     |
| 523    | 483163    | BETA-GLUCOSIDASE (GENTIOBIASE) Ruminococcus albus   | 1.3     |
| 524    | 4455275   | >gi 45968 emb CAA33461  (X15415) beta-glucosidase (AA 1 - 947) [Ruminococcus albus] albus]  | 1.3     |
| 525    | 4376875   | (U80451) Similar to collagen [Caenorhabditis elegans]   | 1.3     |
| 526    | 2494911   | nonstructural protein - hepatitis E virus RNA-directed RNA polymerase [Hepatitis E virus]   | 1.3     |
| 527    | 4539280   | (AL035527) putative protein [Arabidopsis thaliana]  | 0.99    |
| 528    | 1842255   | (AE001642) CT465 hypothetical protein   | 0.45    |
| 529    | 231977    | HYPOTHETICAL PROTEIN KIAA0124 product is novel. [Homo   | 0.44    |
| 530    | 987050    | (AL049498) putative transcription factor  | 0.28    |
| 531    | 2493416   | (U74613) hepatocyte nuclear factor-3/fork head homolog 11B [Homo  | 0.28    |
| 532    | 1778844   | D(4) DOPAMINE RECEPTOR (D(2C) DOPAMINE RECEPTOR)  | 0.073   |
| 533    | 3288470   | >gi 203916 (M84009) dopamine receptor D4  | 0.042   |
|        |           | (X65335) lacZ [Cloning vector pSV-beta-Galactosidase Control]   | 0.031   |
|        |           | S100 CALCIUM-BINDING PROTEIN A13 calcium-binding protein A13 (S100A13) [Homo sapiens]   | 0.0006  |
|        |           | (U83086) LimA [Dictyostelium discoideum]  | 5e-015  |
|        |           | (AJ224360) surf5c [Homo sapiens]  |         |



Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 534    | 3947614   | (AL023828) cDNA EST yk491f8.5 comes from this gene<br>[Caenorhabditis elegans]  | 1e-015  |
| 535    | 1086860   | (U41272) Similar to man(9)-alpha-mannosidase.   | 3e-028  |
| 536    | 3875451   | (Z66496) cDNA EST EMBL:D71941 comes from this gene; cDNA<br>EST EMBL:D74691 comes from this gene; cDNA EST<br>EMBL:D76330 comes from this gene; cDNA EST EMBL:D65192<br>comes from this gene; cDNA EST EMBL:D68540 comes from this                    | 2e-030  |
| 537    | 3877493   | (Z48583) similar to ATPases associated with various cellular<br>activities (AAA); cDNA EST EMBL:Z14623 comes from this gene;<br>cDNA EST EMBL:D75090 comes from this gene; cDNA EST<br>EMBL:D72255 comes from this gene; cDNA EST yk200e4.5 ...       | 1e-035  |
| 538    | 3169010   | (AJ006412) putative GTP-binding protein   | 2e-042  |
| 539    | 3877493   | (Z48583) similar to ATPases associated with various cellular<br>activities (AAA); cDNA EST EMBL:Z14623 comes from this gene;<br>cDNA EST EMBL:D75090 comes from this gene; cDNA EST<br>EMBL:D72255 comes from this gene; cDNA EST yk200e4.5 ...       | 4e-044  |
| 540    | 3877493   | (Z48583) similar to ATPases associated with various cellular<br>activities (AAA); cDNA EST EMBL:Z14623 comes from this gene;<br>cDNA EST EMBL:D75090 comes from this gene; cDNA EST<br>EMBL:D72255 comes from this gene; cDNA EST yk200e4.5 ...       | 3e-044  |
| 608    | 3882189   | (AB018277) KIAA0734 protein [Homo sapiens]  | 9.9     |
| 609    | 3877937   | (Z48716) similarity to a transmembranous region of ubiquinol-<br>cytochrome-C reductase (PIR accession number S38960); cDNA<br>EST EMBL:T00461 comes from this gene; cDNA EST<br>EMBL:D27071 comes from this gene; cDNA EST EMBL:D27070               | 9.6     |
| 610    | 3643019   | (AF064703) glucose transporter 1; CeGT1 [Drosophila   | 8.4     |
| 611    | 3219946   | HYPOTHETICAL PROTEIN MJ1394 Methanococcus jannaschii<br>>gi 1592041 (U67579) conserved hypothetical protein   | 8       |
| 612    | 3219946   | HYPOTHETICAL PROTEIN MJ1394 Methanococcus jannaschii<br>>gi 1592041 (U67579) conserved hypothetical protein   | 8       |
| 613    | 2833328   | FIBRILLARIN   | 7.9     |
| 614    | 4505481   | nucleoporin 88kD complex protein [Homo sapiens]   | 7.8     |
| 615    | 220578    | (D00570) open reading frame (251 AA) [Mus musculus]   | 7.8     |
| 616    | 266810    | NAD(P) TRANSHYDROGENASE SUBUNIT BETA<br>transhydrogenase [Escherichia coli] transhydrogenase (B-specific)<br>(EC 1.6.1.1) b chain NAD(P)+ transhydrogenase (B-specific) (EC<br>1.6.1.1) b chain [Escherichia coli] >gi 1787886 (AE000255) pyridine    | 7.6     |
| 617    | 807646    | (M17294) unknown protein [Human herpesvirus 4]  | 7.6     |
| 618    | 829186    | (X03879) rudimentary protein fragment   | 7.4     |
| 619    | 4322346   | (AF081825) sodium-dependent high-affinity dicarboxylate<br>transporter [Rattus norvegicus]  | 7.4     |
| 620    | 3334785   | (AL031107) hypothetical protein SC5A7.04c   | 7.4     |
| 621    | 1346720   | PHOSPHATIDYLINOSITOL-4-PHOSPHATE 5-KINASE TYPE II<br>ALPHA (PIP5KII-ALPHA) KINASE) >gi 1079474 pir A55967 1-<br>phosphatidylinositol-4-phosphate 5-kinase (EC 2.7.1.68) - human<br>>gi 758697 (U14957) 53K isoform of Type II phosphatidylinositol-4- | 7.3     |
| 622    | 4105819   | (AF050175) Rab7 [Homo sapiens]  | 6.4     |
| 623    | 155865    | (M93125) 80 kDa protein [Babesia bovis]   | 6.3     |
| 624    | 2133638   | boule protein - fruit fly (Drosophila melanogaster) >gi 1395211<br>(U51858) boule protein   | 6.2     |
| 625    | 1788052   | (AE000270) putative transport system permease protein   | 6.2     |
| 626    | 3875616   | (Z77657) F08H9.9 [Caenorhabditis elegans]   | 6.2     |
| 627    | 2499150   | HYPOTHETICAL PROTEIN IN CPS REGION  | 6.2     |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 628    | 1170758   | GALECTIN-3 (GALACTOSE-SPECIFIC LECTIN 3) (MAC-2 ANTIGEN) (IGE-BINDING PROTEIN) (35 KD LECTIN) (CARBOHYDRATE BINDING PROTEIN 35) (CBP 35)   | 6.1     |
| 629    | 2495335   | HEAT SHOCK PROTEIN 42 (42 KD HEAT SHOCK PROTEIN) >gi 1077219 pir  S49767 heat shock protein HSP42 - yeast ( <i>Saccharomyces cerevisiae</i> )  | 6       |
| 630    | 1086677   | (U41020) coded for by <i>C. elegans</i> cDNA yk64f5.3; coded for by <i>C. elegans</i> cDNA yk64f5.5; Similar to zinc finger. [ <i>Caenorhabditis</i>   | 6       |
| 631    | 1170758   | GALECTIN-3 (GALACTOSE-SPECIFIC LECTIN 3) (MAC-2 ANTIGEN) (IGE-BINDING PROTEIN) (35 KD LECTIN) (CARBOHYDRATE BINDING PROTEIN 35) (CBP 35)   | 6       |
| 632    | 440957    | Achaete-Scute homolog Mash-1 gene product  | 6       |
| 633    | 1786037   | (U72284) NADH dehydrogenase subunit 2 [ <i>Apis mellifera</i> ]  | 6       |
| 634    | 2495335   | HEAT SHOCK PROTEIN 42 (42 KD HEAT SHOCK PROTEIN) >gi 1077219 pir  S49767 heat shock protein HSP42 - yeast ( <i>Saccharomyces cerevisiae</i> )  | 6       |
| 635    | 2662541   | (AF036687) contains similarity to protease inhibitors, WAP-type four-disulfide core domains and thyroglobulin type-1 repeats   | 5.7     |
| 636    | 118249    | DAUGHTERLESS PROTEIN fly ( <i>Drosophila melanogaster</i> ) >gi 7839 emb CAA68368  melanogaster] >gi 157174 (J03148) daughterless protein  | 5.6     |
| 637    | 2447066   | (U42580) A570L [ <i>Paramecium bursaria</i> Chlorella virus 1]   | 5.6     |
| 638    | 400927    | RIBONUCLEOPROTEIN RB97D ribonucleoprotein [ <i>Drosophila</i>  | 4.9     |
| 639    | 121189    | GLUCOSE INHIBITED DIVISION PROTEIN A gidA  | 4.8     |
| 640    | 3033398   | (AC004238) putative phosphoribosylaminoimidazolecarboxamide formyltransferase [ <i>Arabidopsis thaliana</i> ]  | 4.6     |
| 641    | 126691    | POSSIBLE MALTASE PRECURSOR (LARVAL VISCERAL PROTEIN D) >gi 103222 pir  S08597 hypothetical protein D - fruit fly ( <i>Drosophila melanogaster</i> ) melanogaster]  | 4.5     |
| 642    | 134087    | RETROTRANSPOSABLE ELEMENT SLACS 132 KD PROTEIN (ORF2) >gi 84054 pir  S14916 hypothetical protein 2 - <i>Trypanosoma brucei gambiense</i> transposon SLACS >gi 10535 emb CAA34931   | 4.3     |
| 643    | 567166    | (L03172) This CDS feature is included to show the translation of the corresponding V_region. Presently translation qualifiers on V_region features are illegal.  | 3.7     |
| 644    | 4355      | (Z14126) RhoNUC protein [ <i>Saccharomyces cerevisiae</i> ]  | 3.7     |
| 645    | 462679    | MYOSIN IB HEAVY CHAIN heavy chain [ <i>Dictyostelium</i>   | 3.6     |
| 646    | 1098989   | (U41508) similar to <i>C. elegans</i> proteins C26E6.9A and C26E6.9B; weakly similar to malate synthase G  | 2.1     |
| 647    | 3249559   | (AF018261) EH domain binding protein Epsin [ <i>Rattus norvegicus</i> ]  | 2       |
| 648    | 2435594   | (AF026212) No definition line found [ <i>Caenorhabditis elegans</i> ]  | 2       |
| 649    | 995808    | (U32240) Ig heavy chain [ <i>Mus musculus</i> ]  | 2       |
| 650    | 3281870   | (AL031004) putative protein [ <i>Arabidopsis thaliana</i> ]  | 1.8     |
| 651    | 728837    | !!!! ALU SUBFAMILY SQ WARNING ENTRY  | 1.6     |
| 652    | 1628461   | (Y08775) Men-3 [ <i>Silene latifolia</i> ]   | 1.2     |
| 653    | 483165    | hypothetical protein - Marek's disease virus gammaherpesvirus tumorigenicity associated mRNA, two complete cds's., gene products [Gallid herpesvirus type 1] >gi 299459 bbs 129316 (S58431) CD4 precursor homolog to CD4 and IgM heavy chain [Gallid herpesvir | 0.93    |
| 654    | 483165    | hypothetical protein - Marek's disease virus gammaherpesvirus tumorigenicity associated mRNA, two complete cds's., gene products [Gallid herpesvirus type 1] >gi 299459 bbs 129316 (S58431) CD4 precursor homolog to CD4 and IgM heavy chain [Gallid herpesvir | 0.87    |
| 655    | 120359    | RECOMBINASE FLP PROTEIN  | 0.71    |



Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 656    | 1711563   | STERYL-SULFATASE PRECURSOR (STEROID SULFATASE) (STERYL-SULFATE SULFOHYDROLASE) sulfatase [Mus   | 0.55    |
| 657    | 731849    | HYPOTHETICAL 13.5 KD PROTEIN IN MOB1-SGA1 INTERGENIC REGION >gi 626376 pir  S48473 probable membrane protein YIL100w - yeast ( <i>Saccharomyces cerevisiae</i> ) >gi 558707 emb CAA86281  (Z38125) orf, len: 117, CAI: 0.08, better | 0.55    |
| 658    | 1669674   | (X86819) Microtubule-associated protein 4   | 0.3     |
| 659    | 2493735   | SKD3 PROTEIN SKD3 [Mus musculus]  | 0.25    |
| 660    | 110030    | homeotic protein Hox 5.1 - mouse  | 0.19    |
| 661    | 1947160   | (AF000298) weak similarity to collagens; glycine- and proline-rich [Caenorhabditis elegans]   | 0.012   |
| 662    | 4567275   | (AC006841) hypothetical protein [Arabidopsis thaliana]  | 0.005   |
| 663    | 2677676   | (AC002467) DRA protein (down-regulated in adenoma); sulfate transporter; match to P40879 (PID:g729367) [Homo sapiens]   | 4e-056  |
| 671    | 345474    | hypothetical protein 2 - Mediterranean fruit fly >gi 5977 emb CAA49660  (X70053) unknown [Ceratitis capitata]   | 9.4     |
| 672    | 4538951   | (AL049488) putative protein [Arabidopsis thaliana]  | 9.1     |
| 673    | 1749646   | (D89219) unnamed protein product  | 7       |
| 674    | 320302    | ORF X protein - human papillomavirus type 41  | 5.5     |
| 675    | 267288    | REPLICATION PROTEIN E1 papillomavirus (type 1) >gi 61013 emb CAA44657  (X62844) E1 [Pygmy chimpanzee  | 5.4     |
| 676    | 3581899   | (AL031543) hypothetical serine-rich protein [Schizosaccharomyces (AL032653) predicted using Genefinder; cDNA EST EMBL:D36367 comes from this gene; cDNA EST yk408c12.5 comes from this gene [Caenorhabditis elegans]                | 4.2     |
| 677    | 3881119   | TRANSCRIPTIONAL ACTIVATOR FE65 APP interacting protein [Rattus rattus]  | 4       |
| 678    | 1169663   | (X57108) cerebroside sulfate activator  | 3.2     |
| 679    | 1565257   | (AJ005559) SPR2A protein [Mus musculus]   | 1.1     |
| 680    | 3093358   | (U71019) NADH dehydrogenase subunit F [Arrhenatherum elatius]   | 0.6     |
| 681    | 1763113   | (AC005620) R33590 1 [Homo sapiens]  | 0.46    |
| 682    | 3548791   | (AC006841) hypothetical protein [Arabidopsis thaliana]  | 0.025   |
| 683    | 4567275   | (AB018338) KIAA0795 protein [Homo sapiens]  | 7e-017  |
| 684    | 3882311   | (D88764) alpha 2 type I collagen [Rana catesbeiana]   | 5.1     |
| 685    | 2443342   | (D00232) E3 anti-[4-hydroxy-3-nitrophenyl(phenolate + phenolic form)] acetyl mAb V-L region [Mus musculus]  | 6.4     |
| 686    | 220464    | HYPOTHETICAL PROTEIN MG181 Mycoplasma genitalium (SGC3) >gi 3844777 (U39697) conserved hypothetical protein   | 2.1     |
| 687    | 1351502   | (S39392) protein tyrosine phosphatase, PTPase   | 4.6     |
| 688    | 250891    | (AE001245) sugar ABC transporter, periplasmic binding protein (msmE) [Treponema pallidum]   | 5.8     |
| 689    | 3323042   | (D64004) hypothetical protein   | 2.7     |
| 690    | 1001741   | DIHYDROXYACETONE KINASE (GLYCERONE KINASE) >gi 493083 (U09771) dihydroxyacetone kinase  | 3e-010  |
| 691    | 1169288   | DIHYDROXYACETONE KINASE (GLYCERONE KINASE) >gi 493083 (U09771) dihydroxyacetone kinase  | 3e-010  |
| 692    | 1169288   | (Z49130) cDNA EST yk486b9.3 comes from this gene; cDNA EST yk486b9.5 comes from this gene   | 7e-005  |
| 693    | 3879530   | (AF007269) A_IG002N01.1 gene product [Arabidopsis thaliana]   | 0.0004  |
| 694    | 2191127   | keratin, hair, acidic, 2 type I intermediate filament [Homo sapiens]  | 1.5     |
| 695    | 4504923   | (Z99111) similar to heavy metal-transporting ATPase [Bacillus   | 7.4     |
| 696    | 2633756   | (Z81531) F36D3.6 [Caenorhabditis elegans]   | 7.3     |
| 697    | 3876796   | HOMEODOMAIN PROTEIN HOX-D4 (HOX-4B) protein Hox D4 - human >gi 296652 emb CAA35237  (X17360) hox 5.1 protein [Homo  | 2.4     |
| 698    | 123299    |   |         |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 706    | 99899     | DNA-directed RNA polymerase (EC 2.7.7.6) largest chain (isoform C) - soybean (fragment) polymerase [Glycine max]   | 0.83    |
| 707    | 4263788   | (AC006068) hypothetical protein  | 0.28    |
| 708    | 500858    | (D14168) 50kDa lectin [Bombyx mori]  | 4e-011  |
| 711    | 142283    | (M30318) put. periplasmic receptor protein (chvE); putative [Agrobacterium tumefaciens]  | 9.2     |
| 712    | 4502949   | collagen, type II, alpha 1 congenital)   |         |
| 713    | 4539163   | >gi 115287 sp P02458 CA12_HUMAN PROCOLLAGEN ALPHA 1(II) CHAIN PRECURSOR [CONTAINS: CHONDROCALCIN] 1-   | 6.9     |
| 715    | 4056437   | (AL049485) putative phytoene synthase  | 0.81    |
| 716    | 119296    | (AC005990) Strong similarity to PFAM PF00069 Eukaryotic protein kinase domain. [Arabidopsis thaliana]  | 2.3     |
| 717    | 4226073   | ELASTIN PRECURSOR (TROPOELASTIN) gallus]   | 1.3     |
| 719    | 2498761   | (AF125443) contains similarity to S. pombe phosphatidyl synthase (GB:Z28295) [Caenorhabditis elegans]  | 8e-016  |
| 720    | 3914963   | PEROXISOMAL MEMBRANE PROTEIN PMP30A protein - yeast (Candida boidinii) >gi 457391 (L27999) peroxisomal membrane protein 31 [Candida boidinii]  | 1.3     |
| 721    | 4457204   | SECRETORY CARRIER-ASSOCIATED MEMBRANE PROTEIN 3 >gi 2232237 (AF005036) secretory carrier membrane protein [Mus (AF108226) immunoglobulin mu heavy chain precursor  | 0.58    |
| 722    | 3860573   | [Monodelphis domestica]  | 0.15    |
| 723    | 2829912   | (AJ235270) unknown [Rickettsia prowazekii]   | 4.9     |
| 724    | 2130573   | (AC002291) Similar ATP-dependent RNA Helicase  | 0.0002  |
| 725    | 539244    | (U96771) putative polygalacturonase [Prevotella bryantii]  | 6.1     |
| 726    | 2633502   | hypothetical protein YKR028w - yeast   | 6.1     |
| 728    | 1078087   | (Z99110) similar to hypothetical proteins from B. subtilis [Bacillus   | 4.7     |
| 729    | 4240219   | hypothetical protein YLR424w - yeast   | 1.6     |
| 732    | 3165370   | (AB020672) KIAA0865 protein [Homo sapiens]   | 2       |
| 733    | 3882195   | (AB011874) alpha subunit of dinitrogenase reductase (Fe protein) [unidentified nitrogen-fixing bacteria]   | 9.3     |
| 735    | 3859938   | (AB018280) KIAA0737 protein [Homo sapiens]   | 2e-061  |
| 737    | 974143    | (AF081101) reverse transcriptase [Lymantria dispar]  | 2.3     |
| 738    | 3877493   | (L42542) RLIP76 protein [Homo sapiens]   | 8.4     |
| 739    | 4240235   | (Z48583) similar to ATPases associated with various cellular activities (AAA); cDNA EST EMBL:Z14623 comes from this gene; cDNA EST EMBL:D75090 comes from this gene; cDNA EST EMBL:D72255 comes from this gene; cDNA EST yk200e4.5 ... | 3e-047  |
| 740    | 4191810   | (AB020680) KIAA0873 protein [Homo sapiens]   | 3e-052  |
| 741    | 4507851   | (AB006532) DNA helicase [Homo sapiens]   | 1e-065  |
| 742    | 3876797   | reserved protease [Homo sapiens]   | 2e-071  |
| 743    | 4376875   | (Z81531) cDNA EST EMBL:D66579 comes from this gene; cDNA EST EMBL:D70408 comes from this gene; cDNA EST yk263d3.5 comes from this gene; cDNA EST yk275c1.5 comes from this gene; cDNA EST EMBL:C10270 comes from this gene [Caenorh... | 2.7     |
| 744    | 91305     | (AE001642) CT465 hypothetical protein  | 0.53    |
| 745    | 1938549   | sperm mitochondrial capsule selenoprotein - mouse  | 0.32    |
| 751    | 3882189   | (U97016) similar to drosophila Rlc1 gene product ribosomal protein L4 (YML4) (NID:g459259)   | 9e-016  |
| 752    | 505665    | (AB018277) KIAA0734 protein [Homo sapiens]   | 7.8     |
| 753    | 3170498   | (U08023) novel cellular proto-oncogene [Homo sapiens]  | 7.8     |
| 754    | 1082243   | (AF052872) APETALA3 homolog PcAP3 [Papaver californicum]   | 6       |
|        |           | autotaxin precursor - human >gi 537906   | 2.6     |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 755    | 4507721   | titin >gi 1212992 emb CAA62188  via Swiss-Prot; available at present via e-mail from LAbEIT@EMBL-Heidelberg.DE [Homo   | 1.5     |
| 756    | 3036883   | (AL022374) putative ABC transporter  | 0.68    |
| 757    | 543593    | hypothetical 39.8K protein (clone GV-B) - garlic virus B   | 0.06    |
| 758    | 79960     | hypothetical 30.5K protein - Enterococcus faecalis plasmid pAM-beta-1 >gi 3023044 (AF007787) orfC  | 1e-024  |
| 759    | 3882195   | (AB018280) KIAA0737 protein [Homo sapiens]   | 6e-060  |
| 766    | 1707719   | (Y08256) orf c02007 [Sulfolobus solfataricus]  | 9.8     |
| 767    | 2133808   | immunoglobulin heavy chain - nurse shark   | 7.6     |
| 768    | 1469880   | (D63483) The KIAA0149 gene product is related to Notch3. [Homo   | 7.5     |
| 769    | 4454062   | (AJ132911) NorD protein [Bradyrhizobium japonicum]   | 5.9     |
| 770    | 137532    | PROTEIN C2 >gi 74386 pir  WZVZB6 59K HindIII-C protein - vaccinia virus (strain WR)  | 4.4     |
| 771    | 1098985   | (U41031) proline-rich [Caenorhabditis elegans]   | 3.4     |
| 772    | 4378891   | (AF132481) Ese1L protein [Mus musculus]  | 2.6     |
| 773    | 4557489   | cone-rod homeobox PROTEIN >gi 2665534 (AF024711) cone rod homeobox protein   | 1.5     |
| 774    | 2135894   | peripheral benzodiazepine receptor - human   | 0.52    |
| 775    | 477495    | cell-fate determining gene Notch2 protein - rat  | 0.51    |
| 776    | 1945493   | (U56965) Similar to NAD(P) transhydrogenase, mitochondrial; coded for by C. elegans cDNA yk27c1.5; coded for by C. elegans cDNA yk35b9.5; coded for by C. elegans cDNA yk35b9.3; coded for by C. elegans cDNA yk161c9.3; coded for by C. elegans ... | 0.39    |
| 777    | 746516    | (U23517) D1022.7 [Caenorhabditis elegans] >gi 3258651 elegans]   | 0.059   |
| 778    | 2498786   | GLYCEROL-3-PHOSPHATE ACYLTRANSFERASE PRECURSOR (GPAT) (P90) acyltransferase homolog - mouse >gi 193367 (M77003) glycerol-3-phosphate acyltransferase [Mus  | 0.058   |
| 779    | 2134384   | procKr2 - chicken (fragment) gallus]   | 0.015   |
| 780    | 4176500   | (AL031177) dJ889M15.3 (novel protein)  | 0.001   |
| 781    | 500858    | (D14168) 50kDa lectin [Bombyx mori]  | 5e-010  |
| 782    | 4204294   | (AC003027) lcl prt seq No definition line found  | 3e-010  |
| 783    | 500858    | (D14168) 50kDa lectin [Bombyx mori]  | 2e-010  |
| 784    | 3184082   | (AL023781) N-terminal acetyltransferase 1  | 6e-014  |
| 785    | 3184082   | (AL023781) N-terminal acetyltransferase 1  | 3e-014  |
| 786    | 1330401   | (U58762) T27F7.1 gene product [Caenorhabditis elegans]   | 6e-030  |
| 787    | 1330401   | (U58762) T27F7.1 gene product [Caenorhabditis elegans]   | 3e-030  |
| 788    | 3879850   | (Z81592) predicted using Genefinder  | 8e-034  |
| 789    | 1072198   | (U40942) No definition line found [Caenorhabditis elegans]   | 1e-037  |
| 790    | 3327160   | (AB014573) KIAA0673 protein [Homo sapiens]   | 1e-062  |
| 791    | 3413886   | (AB007931) KIAA0462 protein [Homo sapiens]   | 1e-073  |
| 800    | 1903264   | (Y11824) hypothetical protein [Pisum sativum]  | 9.5     |
| 801    | 2739276   | (AJ223176) Ser/Thr protein kinase  | 5.6     |
| 802    | 4521264   | (AB015874) guanylate cyclase OIGC-R2   | 5.6     |
| 803    | 2144044   | zinc finger protein AT-BP2 - black rat protein AT-BP2 [Rattus rattus]  | 5.5     |
| 804    | 4049682   | (AF063866) ORF MSV092 hypothetical protein [Melanoplus sanguinipes entomopoxvirus]   | 4.3     |
| 805    | 2842704   | HYPOTHETICAL 73.3 KD PROTEIN C6G9.14 IN CHROMOSOME I >gi 1644326 emb CAB03616.1  pr otein  | 3.2     |
| 806    | 1526981   | (X99945) amino acid permease YeeF like protein [Salmonella   | 2.5     |
| 807    | 1082243   | autotaxin precursor - human >gi 537906   | 2.5     |
| 808    | 3660667   | (AF055079) inositol 1,4,5-trisphosphate receptor   | 2.4     |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 809    | 2500002   | PHOSPHORIBOSYLAMINE--GLYCINE LIGASE<br>PHOSPHORIBOSYLFORMYLGLYCINAMIDINE CYCLO-<br>LIGASE (AIRS) synthetase, aminoimidazole ribonucleotide<br>synthetase, glycineamide ribonucleotide transformylase {EC 6.3.4.13,<br>6.3.3.1, 2.1.2.2} [Chironomus tentans, Peptide, 1371 aa] | 2.4     |
| 810    | 4507721   | titin >gi 1212992 emb CAA62188  via Swiss-Prot; available at<br>present via e-mail from LABEIT@EMBL-Heidelberg.DE [Homo  | 1.5     |
| 811    | 4507721   | titin >gi 1212992 emb CAA62188  via Swiss-Prot; available at<br>present via e-mail from LABEIT@EMBL-Heidelberg.DE [Homo  | 1.4     |
| 812    | 2833215   | INTERFERON-ACTIVATABLE PROTEIN 205 protein - mouse<br>>gi 385703 bbs 133592 (S62227) D3=lipopolysaccharide-inducible<br>[mice, macrophages, Peptide, 425 aa] [Mus sp.]   | 1.1     |
| 813    | 1262910   | (U51645) cytidine triphosphate synthetase [Plasmodium falciparum]  | 0.64    |
| 814    | 1245061   | (U46069) fertilin alpha subunit [Oryctolagus cuniculus]  | 0.005   |
| 815    | 4493746   | (AL034358) predicted using hexExon; L4830.10, Hypothetical<br>protein, len: 816 aa [Leishmania major]  | 0.003   |
| 816    | 3283350   | (AF062378) calmodulin-binding protein SHA1 [Mus musculus]  | 0.003   |
| 817    | 4204294   | (AC003027) lclprt seq No definition line found   | 3e-006  |
| 818    | 4309681   | (AC006930) R33423_1 [Homo sapiens]   | 4e-007  |
| 819    | 3293547   | (AF072709) putative oxidoreductase [Streptomyces lividans]   | 5e-013  |
| 820    | 1086900   | (U41278) contains similarity to G beta repeats<br>(Z73428) similar to Zinc finger, C3HC4 type (RING finger); cDNA<br>EST EMBL:D67323 comes from this gene [Caenorhabditis elegans]<br>>gi 3881096 emb CAB16481  finger); cDNA EST EMBL:D67323<br>comes from this gene          | 2e-028  |
| 821    | 3878739   | (AB018280) KIAA0737 protein [Homo sapiens]   | 6e-031  |
| 822    | 3882195   | (AF057140) cargo selection protein TIP47 [Homo sapiens]  | 1e-053  |
| 823    | 3095186   | (Y08370) alpha-amylase [Crassostrea gigas]   | 7e-060  |
| 841    | 1915885   | (U73103) laccase [Liriodendron tulipifera]   | 9.2     |
| 842    | 1621461   | (S41487) possible ribosomal protein=I(3)S12 Canton S wild type<br>[Drosophila melanogaster, Peptide, 73 aa] [Drosophila melanogaster]  | 9.2     |
| 843    | 232620    | HYPOTHETICAL 73.6 KD PROTEIN CY49.21<br>>gi 1370248 emb CAA98194  (Z73966) hypothetical protein Rv2082   | 9.1     |
| 844    | 1731338   | (AF096295) cytochrome oxidase subunit I [Naja siamensis]   | 6.9     |
| 845    | 3873261   | (AF063866) ORF MSV173 putative serine/threonine protein kinase<br>Swinpox virus C20L homolog (vaccinia F10L), similar to<br>SW:P32216 [Melanoplus sanguinipes entomopoxvirus]  | 6.9     |
| 846    | 4049727   | HYPOTHETICAL PROTEIN HI1265  | 5.5     |
| 847    | 1175595   | collagen:SUBUNIT=alpha2:ISOTYPE=IX [Homo sapiens]  | 4.1     |
| 848    | 446631    | odz protein - fruit fly (Drosophila sp.) product=tenascin homolog<br>[Drosophila melanogaster, 9- to 12-hour-old embryos, Peptide, 2406  | 4.1     |
| 849    | 627171    | (AF076785) serum amyloid A-activating factor SAF-5   | 3.2     |
| 850    | 3986440   | stem cell protein ERA-1-399, retinoic acid-induced - mouse<br>>gi 387146 (M22115) ERA-1-399 protein [Mus musculus]   | 3.1     |
| 851    | 91312     | (AF008203) homeobox protein [Homo sapiens]   | 1.4     |
| 852    | 4102043   | (U23517) D1022.7 [Caenorhabditis elegans] >gi 3258651 elegans]   | 1.3     |
| 853    | 746516    | (AF032122) unknown [Streptococcus thermophilus bacteriophage   | 0.28    |
| 854    | 2935691   | nodule-specific (hydroxy)proline-rich protein  | 0.21    |
| 855    | 99972     | DIHYDROXYACETONE KINASE (GLYCERONE KINASE)<br>>gi 493083 (U09771) dihydroxyacetone kinase  | 0.014   |
| 856    | 1169288   | (AB017156) gob-5 [Mus musculus]  | 1e-005  |
| 857    | 3721912   | (U29488) C56C10.3 gene product [Caenorhabditis elegans]  | 1e-011  |
| 858    | 868241    | (AF072709) putative oxidoreductase [Streptomyces lividans]   | 3e-012  |
| 859    | 3293547   | (U93868) RNA polymerase III subunit [Homo sapiens]   | 5e-013  |
| 860    | 2228750   |  | 1e-015  |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 861    | 1175412   | HYPOTHETICAL 24.2 KD PROTEIN C13A11.03 IN CHROMOSOME I >gi 984224 emb CAA90804  | 5e-021  |
| 883    | 4505413   | non-metastatic cells 5, protein expressed in (nucleoside-diphosphate kinase) KINASE HOMOLOG 5 (NDK-H 5) (NDP KINASE HOMOLOG 5) nucleoside-diphosphate kinase [Homo sapiens]   | 9       |
| 884    | 3308984   | (AB008516) mtpd [Mus musculus]  | 9       |
| 885    | 3273643   | (AF042021) olfactory receptor [Sus scrofa]  | 9       |
| 886    | 1170338   | HETEROCHROMATIN PROTEIN 1 HOMOLOG ALPHA (HP1 ALPHA) (ANTIGEN P25) >gi 184311 (L07515) complete cds.], gene product [Homo sapiens] chromosomal autoantigen [human, (U42832) coded for by C. elegans cDNA yk107c8.5; coded for by C. elegans cDNA yk107c8.3; Similar to UDP-glucuronosyltransferase. [Caenorhabditis elegans] | 9       |
| 887    | 1125745   | (U42832) coded for by C. elegans cDNA yk107c8.5; coded for by C. elegans cDNA yk107c8.3; Similar to UDP-glucuronosyltransferase. [Caenorhabditis elegans]   | 6.9     |
| 888    | 2921102   | (AF020337) P6 [rice ragged stunt virus]   | 6.9     |
| 889    | 1707199   | (U80841) C13A10.1 gene product [Caenorhabditis elegans]   | 6.8     |
| 890    | 1125745   | (U42832) coded for by C. elegans cDNA yk107c8.5; coded for by C. elegans cDNA yk107c8.3; Similar to UDP-glucuronosyltransferase. [Caenorhabditis elegans]   | 5.3     |
| 891    | 2493564   | PUTATIVE RIBOFLAVIN BIOSYNTHESIS ENZYME >gi 1707704 emb CAA69508  (Y08256) riboflavin biosynthesis protein ribG [Sulfolobus solfataricus]   | 5.2     |
| 892    | 2276148   | (Z81463) Similarity to C.elegans zinc finger proteins [Caenorhabditis]  | 5.2     |
| 893    | 1346425   | L-LACTATE DEHYDROGENASE 1.1.1.27) - Mycoplasma genitalium (SGC3) >gi 1046180  | 5.2     |
| 894    | 4234795   | (AF078135) unknown [Leptospira borgpetersenii]  | 5.2     |
| 895    | 3874963   | (Z92780) cDNA EST EMBL:D75953 comes from this gene [Caenorhabditis elegans]   | 4       |
| 896    | 3875723   | (Z54270) similar to membrane glycoprotein   | 3.9     |
| 897    | 1086593   | (U41007) C33H5.15 gene product [Caenorhabditis elegans]   | 3.9     |
| 898    | 3289979   | (AC005263) SP62 HUMAN; SAP 62; SF3A66 [Homo sapiens]  | 3.1     |
| 899    | 2208965   | (Y10528) cyanide insensitive terminal oxidase [Pseudomonas]   | 3       |
| 900    | 4539386   | (AL035526) extensin-like protein  | 1.8     |
| 901    | 2662561   | (AF036692) Similar to seven transmembrane receptor  | 1.8     |
| 902    | 2129184   | pheromone shutdown protein homolog - Methanococcus jannaschii >gi 1592009 (U67576) pheromone shutdown protein (traB) [Methanococcus jannaschii]   | 1.3     |
| 903    | 2317864   | (U78289) ty lactone synthase module 7 [Streptomyces fradiae]  | 0.61    |
| 904    | 3808242   | (AF069669) pol protein [Human immunodeficiency virus type 1]  | 0.6     |
| 905    | 3327128   | (AB014557) KIAA0657 protein [Homo sapiens]  | 0.46    |
| 906    | 294529    | (L14933) convertase PC5 [Rattus norvegicus]   | 0.35    |
| 907    | 3005087   | (AF044924) hook2 protein [Homo sapiens]   | 0.12    |
| 908    | 3297817   | (AL031032) putative protein [Arabidopsis thaliana]  | 0.025   |
| 909    | 3941342   | (AF043250) mitochondrial outer membrane protein [Homo sapiens] >gi 3941347 (AF043253) mitochondrial outer membrane protein [Homo sapiens] >gi 4105703 gb AAD02504   | 0.01    |
| 910    | 480989    | finger protein rfp - mouse (fragment)   | 5e-006  |
| 911    | 2842526   | (AL021746) hypothetical anaphase promoting factor component [Schizosaccharomyces pombe] anaphase promoting complex  | 3e-018  |
| 912    | 4226073   | (AF125443) contains similarity to S. pombe phosphatidyl synthase (GB:Z28295) [Caenorhabditis elegans]   | 4e-022  |
| 913    | 3551821   | (AF058803) mucin 4 [Homo sapiens]   | 3e-038  |
| 914    | 3882195   | (AB018280) KIAA0737 protein [Homo sapiens]  | 4e-051  |
| 940    | 279539    | RNA-directed RNA polymerase (EC 2.7.7.48) - Marburg virus (strain Musoke) >gi 332179 (M92834) L Protein [Marburg virus]   | 8.7     |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 941    | 117865    | CYTOCHROME B >gi 2144288 pir H22848 ubiquinol--cytochrome-c reductase (EC 1.10.2.2) cytochrome b - <i>Sauroleishmania tarentolae</i> (AL008970) predicted using hexExon; MAL3P4.10 (PFC0515c),  | 8.6     |
| 942    | 3764008   | Hypothetical protein, len: 1237 aa  | 8.6     |
| 943    | 3649770   | (Z98547) predicted using hexExon; MAL3P3.11 (PFC0380w), Dual-specificity protein phosphatase, len: 581 aa; Similarity to protein phosphatases. <i>S.cerevisiae</i> protein-tyrosine phosphatase YVH1 (SW:PVH1 YEAST) BLAST Score: 123, s... | 6.5     |
| 944    | 1125745   | (U42832) coded for by <i>C. elegans</i> cDNA yk107c8.5; coded for by <i>C. elegans</i> cDNA yk107c8.3; Similar to UDP-glucuronosyltransferase. [ <i>Caenorhabditis elegans</i> ]  | 5.1     |
| 945    | 2208965   | (Y10528) cyanide insensitive terminal oxidase [ <i>Pseudomonas</i>  | 5       |
| 946    | 2146997   | L-selectin precursor - rabbit >gi 847788  | 5       |
| 947    | 135091    | ALANYL-TRNA SYNTHETASE (ALANINE--TRNA LIGASE) (ALARS) >gi 95227 pir S16897 alanine--tRNA ligase (EC 6.1.1.7) - <i>Rhizobium leguminosarum</i> bv. <i>viciae</i> synthetase [ <i>Rhizobium</i>   | 3.8     |
| 948    | 1171815   | NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 4 >gi 102585 pir S26021 NADH dehydrogenase mitochondrion (SGC4) >gi 559495 emb CAA38170  (X54253) ND4 protein [ <i>Ascaris</i>   | 3.8     |
| 949    | 2120034   | glycoprotein B homolog precursor - feline herpesvirus 1 >gi 261095 bbs 120003 (S49775) glycoprotein B homolog [feline herpesvirus type 1 FHV-1, Peptide, 948 aa] [ <i>Feline herpesvirus 1</i> ]  | 1.7     |
| 950    | 4507539   | UNKNOWN >gi 2587054 (AF027204) putative tetraspan transmembrane protein L6H [ <i>Homo sapiens</i> ]   | 0.99    |
| 951    | 417237    | CHEMOTAXIS LAFT PROTEIN parahaemolyticus >gi 677909 (U20541) Laft [ <i>Vibrio parahaemolyticus</i> ] >gi 1518953 (U52957)   | 0.26    |
| 952    | 3798624   | (AF082100) FK506 polyketide synthase [ <i>Streptomyces</i> sp. MA6548]  | 0.12    |
| 953    | 4493746   | (AL034358) predicted using hexExon; L4830.10, Hypothetical protein, len: 816 aa [ <i>Leishmania major</i> ]   | 0.003   |
| 954    | 1175412   | HYPOTHETICAL 24.2 KD PROTEIN C13A11.03 IN CHROMOSOME I >gi 984224 emb CAA90804  | 6e-014  |
| 955    | 4240235   | (AB020680) KIAA0873 protein [ <i>Homo sapiens</i> ]   | 8e-044  |
| 976    | 1350599   | RIBONUCLEOSIDE-DIPHOSPHATE REDUCTASE ALPHA CHAIN (RIBONUCLEOTIDE REDUCTASE) reductase (EC 1.17.4.1) - <i>Mycoplasma genitalium</i> (SGC3) reductase, alpha chain  | 8.2     |
| 977    | 731840    | HYPOTHETICAL 23.9 KD PROTEIN IN SGA1-KTR7 INTERGENIC REGION >gi 1077785 pir S49791 probable membrane protein YIL089w - yeast ( <i>Saccharomyces cerevisiae</i> ) >gi 577125 emb CAA86705.1  (Z46728) YI9910.07, unknown orf,                | 6.4     |
| 978    | 2132436   | probable membrane protein YDL118w - yeast   | 6.3     |
| 979    | 1710518   | 60S RIBOSOMAL PROTEIN L22 homologue to human L22  | 6.3     |
| 980    | 3602956   | (AF041468) rbcR homolog [ <i>Guillardia theta</i> ]   | 4.9     |
| 981    | 2146997   | L-selectin precursor - rabbit >gi 847788  | 4.8     |
| 982    | 3880890   | (AL023838) predicted using Genefinder; similar to Helix-hairpin-helix motif.; cDNA EST yk241d12.5 comes from this gene; cDNA EST yk401c3.5 comes from this gene; cDNA EST CEMSE47F comes from this gene [ <i>Caenorhabditis elegans</i> ]   | 4.8     |
| 983    | 3880727   | (AL032632) predicted using Genefinder   | 2.8     |
| 984    | 1352547   | NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 2 >gi 2147757 pir S62766 NADH dehydrogenase caldarium) mitochondrion (fragment) subunit 2 [ <i>Cyanidium caldarium</i> ]   | 2.2     |
| 985    | 3551845   | (AF071879) capsid protein [ <i>Porcine circovirus</i> ]   | 2.1     |
| 986    | 3249009   | (AF068139) S5 ribosomal protein/maturase fusion protein [ <i>Cryptosporidia parvum</i> ]  | 2.1     |



Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 987    | 1707126   | (U80454) T16A1.2 [Caenorhabditis elegans]   | 2.1     |
| 988    | 1497971   | (U55797) VP6 [Bluetongue virus]   | 1.7     |
| 989    | 3877568   | (Z70208) similar to collagen  | 0.97    |
| 990    | 3309543   | (AF036382) MLL [Fugu rubripes]  | 1e-005  |
| 991    | 4240235   | (AB020680) KIAA0873 protein [Homo sapiens]  | 2e-039  |
| 1015   | 3257605   | (AP000005) 484aa long hypothetical protein  | 8.2     |
|        |           | (X57019) unnamed protein product [Homo sapiens]   |         |
| 1016   | 37593     | >gi 238775 bbs 65126 (S65125) putative tyrosine kinase receptor=UFO [human, NIH3T3, Peptide, 894 aa]  | 8.1     |
| 1017   | 746533    | (U23520) similar to cuticular collagen [Caenorhabditis elegans]   | 8       |
| 1018   | 729045    | BETA CASEIN PRECURSOR scrofa]   | 7.9     |
|        |           | INTERLEUKIN-1 BETA CONVERTASE PRECURSOR (IL-1BC)  |         |
| 1019   | 1170463   | (IL-1 BETA CONVERTING ENZYME) (ICE) converting enzyme   | 7.8     |
| 1020   | 1197641   | (U46859) DdhB [Yersinia enterocolitica (type 0:8)]  | 6       |
| 1021   | 2104691   | (U92794) alpha glucosidase II, beta subunit [Mus musculus]  | 4.7     |
| 1022   | 1139577   | (D63706) Orf5 [Streptomyces griseus]  | 4.7     |
|        |           | EARLY GLYCOPROTEIN GP48 PRECURSOR glycoprotein (18)   |         |
| 1023   | 136785    | [human herpesvirus 5]   | 3.5     |
| 1024   | 1314757   | (U54761) phosphoglucose isomerase [Erwinia amylovora]   | 2.6     |
|        |           | PUTATIVE TRANSPOSASE FOR INSERTION SEQUENCE IS408   |         |
| 1025   | 2497383   | >gi 309869 (L09108) IS408 transposase; putative [Pseudomonas cepacia] >gi 1097384 prf 2113421C transposase [Burkholderia]   | 1.6     |
|        |           | CHITOOLOGOSACCHARIDOLYTIC BETA-N-   |         |
| 1026   | 1346281   | ACETYLGLUCOSAMINIDASE PRECURSOR (BETA-GLCNACASE) 3.2.1.-) - silkworm >gi 998377 bbs 165703 (S77548) chitooligosaccharidolytic beta-N-acetylglucosaminidase, beta-                     | 0.7     |
|        |           | ALPHA-1D ADRENERGIC RECEPTOR (ALPHA 1D-   |         |
| 1027   | 3121722   | ADRENOCEPTOR) (ALPHA-1A ADRENERGIC RECEPTOR) receptor [mice, brain, Peptide, 562 aa] [Mus sp.]  | 0.18    |
| 1028   | 4071321   | (AF073954) Y-box protein MSY2 [Mus musculus]  | 0.14    |
| 1029   | 1293835   | (U56965) C15H9.5 gene product [Caenorhabditis elegans]  | 0.11    |
|        |           | (AC004084) similar to GTPase-activating proteins; 35% similar to  |         |
| 1030   | 2822157   | JC5047 (PID:g2136083) [Homo sapiens]  | 2e-013  |
| 1040   | 1877301   | (Z92774) hypothetical protein Rv3570c   | 9.7     |
|        |           | GAMMA-SOLUBLE NSF ATTACHMENT PROTEIN (SNAP-   |         |
| 1041   | 3024629   | GAMMA) >gi 423252 pir S32369 gamma-SNAP protein - bovine >gi 298669 bbs 127528 gamma soluble NSF attachment protein, gamma SNAP=N-ethyl-maleimide-sensitive fusion protein attachment | 7.8     |
|        |           | UBIQUITIN CARBOXYL-TERMINAL HYDROLASE 7   |         |
| 1042   | 731044    | (UBIQUITIN THIOLESTERASE 7) probable membrane protein YIL156w - yeast (Saccharomyces cerevisiae)  | 7.6     |
| 1043   | 2190592   | >gi 557767 emb CAA86122  (Z38059) orf, len: 1071, CAI: 0.13,  | 4.3     |
| 1044   | 2627435   | (U78315) Hermansky-Pudlak syndrome protein homolog [Mus]  | 3.5     |
| 1045   | 3881166   | (AF013614) No definition line found [Fugu rubripes]   | 2       |
|        |           | (AL032641) Y5F2A.3 [Caenorhabditis elegans]   |         |
| 1046   | 729918    | LA PROTEIN HOMOLOG (LA RIBONUCLEOPROTEIN) (LA AUTOANTIGEN HOMOLOG)  | 0.009   |
| 1047   | 4106562   | (Z83819) dJ146H21.2 (similar to CYTOCHROME B-245 HEAVY CHAIN) [Homo sapiens]  | 3e-017  |
|        |           | down-regulated in adenoma protein down-regulated in adenoma   |         |
| 1048   | 4557535   | (DRA) - human >gi 291964 576-580, 579-583; acidic transcr. activ. domain 620-640;; homeobox motif 653-676 [Homo sapiens]  | 4e-026  |
| 1049   | 4240235   | (AB020680) KIAA0873 protein [Homo sapiens]  | 1e-037  |
| 1050   | 4240235   | (AB020680) KIAA0873 protein [Homo sapiens]  | 2e-056  |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 1065   | 586240    | VITAMIN K-DEPENDENT GAMMA-CARBOXYLASE (GAMMA-GLUTAMYL CARBOXYLASE) 4.1.1.-) - bovine >gi 289399 (I09726) gamma-carboxylase  | 9.6     |
| 1066   | 3413410   | (AL031231) 30S ribosomal protein S15  | 7.4     |
| 1067   | 1170758   | GALECTIN-3 (GALACTOSE-SPECIFIC LECTIN 3) (MAC-2 ANTIGEN) (IGE-BINDING PROTEIN) (35 KD LECTIN) (CARBOHYDRATE BINDING PROTEIN 35) (CBP 35)  | 7.4     |
| 1068   | 867985    | (L39002) S1 gene product [Avian orthoreovirus] orthoreovirus]   | 7.4     |
| 1069   | 127494    | METALLOTHIONEIN (MT) lucius] >gi 62783 emb CAA49636  (X70042) Metallothioein  | 7.3     |
| 1070   | 3150259   | (AL023634) palmitoyl-protein thioesterase precursor [Schizosaccharomyces pombe]   | 5.7     |
| 1071   | 328647    | (M81729) tat [Human immunodeficiency virus type 1]  | 4.3     |
| 1072   | 2605979   | (AF030027) 35 [Equine herpesvirus 4]  | 3.3     |
| 1073   | 137532    | PROTEIN C2 >gi 74386 pir  WZVZB6 59K HindIII-C protein - vaccinia virus (strain WR)   | 3.3     |
| 1074   | 3769620   | (AF091563) olfactory receptor [Rattus norvegicus]   | 3.3     |
| 1075   | 687367    | (U15829) envelope glycoprotein V3-V5 loop region [Human immunodeficiency virus type 1]  | 1.4     |
| 1076   | 3915901   | TRANSCRIPTION INITIATION FACTOR TFIID 60 KD SUBUNIT (TAFII-60) (TAFII60)  | 0.48    |
| 1077   | 2317934   | (U97553) unknown [murine herpesvirus 68]  | 0.37    |
| 1080   | 3878966   | (Z68009) R09A8.1 [Caenorhabditis elegans]   | 9.1     |
| 1081   | 2341037   | (AC000104) F19P19.17 [Arabidopsis thaliana]   | 2.3     |
| 1084   | 4508019   | zinc finger protein 231 protein [Homo sapiens]  | 8.9     |
| 1085   | 3877198   | (Z69903) predicted using Genefinder; Similarity to Rat casein kinase I (SW:KC1D_RAT); cDNA EST EMBL:D65322 comes from this gene; cDNA EST EMBL:D68704 comes from this gene; cDNA EST yk475f2.5 comes from this gene [Caenorhabditis...] | 4       |
| 1086   | 171998    | (J02691) mitochondrial phenylalanyl-tRNA synthetase alpha subunit precursor [Saccharomyces cerevisiae]  | 2.3     |
| 1087   | 135574    | LARGE TEGUMENT PROTEIN BPLF1 reading frame, 1 NXT/S, analogous to VZV RF22 BPLF1 [Human herpesvirus 4]  | 0.77    |
| 1091   | 1718312   | (U75698) ORF K10 [Kaposi's sarcoma-associated herpesvirus]  | 9.8     |
| 1092   | 1076012   | stress-sensitive restriction system protein 2 - Corynebacterium glutamicum (ATCC 13032) >gi 549844 restriction endonuclease which is stress-sensitive and ATP-dependent. It contains a typical  | 7.5     |
| 1093   | 882341    | (U24702) LRP1 [Arabidopsis thaliana]  | 0.71    |
| 1094   | 3955011   | (AJ005438) beta adrenoreceptor B  | 0.54    |
| 1095   | 1086900   | (U41278) contains similarity to G beta repeats  | 1e-028  |
| 1096   | 4519908   | (AB018106) HrSmad1/5 [Halocynthia roretzi]  | 6       |
| 1097   | 3043868   | (U95835) extracellular protein Exp5 precursor   | 5.9     |
| 1098   | 2494294   | NEUROGENIC LOCUS NOTCH 3 PROTEIN  | 3.5     |
| 1099   | 3879748   | (Z72514) predicted using Genefinder; similar to collagen; cDNA EST EMBL:M89258 comes from this gene; cDNA EST EMBL:D68856 comes from this gene; cDNA EST yk232e11.3 comes from this gene; cDNA EST yk232e11.5 comes from this gene;...  | 0.079   |
| 1100   | 1123087   | (U42436) C49H3.3 gene product [Caenorhabditis elegans]  | 5e-006  |
| 1101   | 3880809   | (AL021483) similar to Probable rabGAP domains; cDNA EST EMBL:D34945 comes from this gene; cDNA EST EMBL:D27313 comes from this gene; cDNA EST EMBL:D34829 comes from this gene; cDNA EST EMBL:D27312 comes from this gene; cDNA         | 3e-011  |
| 1105   | 1772652   | (U70664) 2-keto-3-deoxygluconate kinase [Haloferax alicantei]   | 5.8     |
| 1106   | 113000    | ACTIN BINDING PROTEIN   | 5.5     |



Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 1107   | 2702276   | (AC003033) putative beta-glucosidase [Arabidopsis thaliana]   | 4.2     |
| 1108   | 1504006   | (D86966) similar to human ZFY protein. [Homo sapiens]   | 4.2     |
| 1109   | 2337833   | (Z98604) hypothetical protein MLCB2052.27   | 1.8     |
| 1110   | 3122952   | TIPD PROTEIN >gi 2407788 (AF019236) TipD [Dictyostelium]  | 6e-019  |
| 1112   | 4049344   | (AL034567) putative protein [Arabidopsis thaliana]  | 6.8     |
| 1113   | 2143767   | glycoprotein - rat >gi 986943 (L08134) glycoprotein [Rattus norvegicus]   | 0.018   |
| 1116   | 200135    | (M63849) 2'-5' oligoadenylate synthetase [Mus musculus]   | 7.9     |
| 1119   | 133135    | MITOCHONDRIAL RIBOSOMAL PROTEIN VAR1 1-339)   | 9.7     |
| 1120   | 1580768   | (X92688) NADH dehydrogenase [Pecten maximus]  | 4.4     |
| 1121   | 4587868   | (AF069302) Orf2 [Pediococcus pentosaceus]   | 1.5     |
| 1123   | 3851496   | (AF051933) cyclin T; positive elongation transcription factor b cyclin subunit [Drosophila melanogaster]  | 3.4     |
| 1131   | 3877133   | (Z83109) predicted using Genefinder   | 6       |
| 1132   | 118864    | DNA POLYMERASE (A PROTEIN) 2.7.7.7) - ground squirrel hepatitis virus >gi 325402  | 4.6     |
| 1133   | 415638    | (U03388) cyclooxygenase 1 [Rattus rattus]   | 4.5     |
| 1134   | 4100099   | (U93502) hypothetical protein 256 [Secale cereale]  | 2.7     |
| 1135   | 2130154   | hypothetical protein 241 - maize chloroplast  | 1.2     |
| 1136   | 4521280   | (AB011832) cytochrome c oxidase subunit I [Dicyema misakiense]  | 0.94    |
| 1137   | 2706875   | (D85084) NCAM-180 [Cynops pyrrhogaster]   | 0.68    |
| 1138   | 746516    | (U23517) D1022.7 [Caenorhabditis elegans] >gi 3258651 elegans]  | 0.061   |
| 1139   | 746516    | (U23517) D1022.7 [Caenorhabditis elegans] >gi 3258651 elegans]  | 0.061   |
| 1140   | 1938549   | (U97016) similar to drosophila Rlc1 gene product ribosomal protein L4 (YML4) (NID:g459259)  | 5e-017  |
| 1141   | 1938549   | (U97016) similar to drosophila Rlc1 gene product ribosomal protein L4 (YML4) (NID:g459259)  | 3e-017  |
| 1142   | 3851703   | (AF100421) p80 [Rattus norvegicus]  | 1e-056  |
| 1143   | 4191810   | (AB006532) DNA helicase [Homo sapiens]  | 8e-066  |
| 1144   | 3851703   | (AF100421) p80 [Rattus norvegicus]  | 8e-070  |
| 1163   | 82620     | probable serine-type carboxypeptidase (EC 3.4.16.1) - wheat   | 9.7     |
| 1164   | 3879471   | (Z69885) predicted using Genefinder   | 9.6     |
| 1165   | 1075011   | mercury resistance regulatory protein KW20)   | 9.5     |
| 1166   | 4490715   | (AL035680) putative protein [Arabidopsis thaliana]  | 9.3     |
| 1167   | 487418    | (L20303) actin filament-associated protein [Gallus gallus]  | 7.6     |
| 1168   | 560610    | trypsin inhibitor, WTI [Triticum aestivum=wheat, variety San Pastore, endosperm, Peptide, 71 aa]  | 7.5     |
| 1169   | 3322954   | (AE001240) spermidine/putrescine ABC transporter, permease protein (potB) [Treponema pallidum]  | 7.5     |
| 1170   | 1707179   | (U80839) ZC204.15 gene product [Caenorhabditis elegans]   | 7.4     |
| 1171   | 209619    | (J01901) major coat protein A [Adeno associated virus 2]  | 7.3     |
| 1172   | 1657233   | (D88529) serine acetyltransferase serine acetyltransferase [Spinacia]   | 7.3     |
| 1173   | 722375    | (U23139) similar to phospholipase ADRA-B precursor  | 7.2     |
| 1174   | 138018    | TAIL FIBER PROTEIN GP37 (RECEPTOR RECOGNIZING PROTEIN) >gi 76090 pir TLBP74 tail fiber protein gp37 - phage T4 >gi 15374 emb CAA24228  (V00863) gene 37 [coliphage T4] >gi 215887 (J02509) tail fiber protein 37 [Bacteriophage T4] | 5.5     |
| 1175   | 1001217   | (D64003) hypothetical protein   | 4.4     |
| 1176   | 1175410   | HYPOTHETICAL 126.5 KD PROTEIN C31A2.16 IN CHROMOSOME I >gi 2130427 pir S58108 hypothetical protein  | 4.4     |
| 1177   | 2829216   | (AF044287) delta adaptin subunit of AP-3 [Drosophila melanogaster]  | 4.2     |
| 1178   | 1084374   | histone-lysine N-methyltransferase (EC 2.1.1.43) large chain N-methyltransferase - garden pea carboxylase large subunit N-methyltransferase [Pisum sativum]   | 4.1     |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 1179   | 567166    | (L03172) This CDS feature is included to show the translation of the corresponding V_region. Presently translation qualifiers on V_region features are illegal.   | 3.8     |
| 1180   | 2492625   | HYPOTHETICAL 49.3 KD PROTEIN C09G5.1 IN CHROMOSOME II >gi 3874104 emb CAA86760  | 3.2     |
| 1181   | 1065455   | (U40410) coded for by C. elegans cDNA yk9e10.5; coded for by C. elegans cDNA yk9e10.3; multiple regions of similarity to EGF-like repeats and cysteine-rich repeats   | 2.6     |
| 1182   | 3406753   | (AF068182) B cell linker protein BLNK [Mus musculus]  | 2.6     |
| 1183   | 1065455   | (U40410) coded for by C. elegans cDNA yk9e10.5; coded for by C. elegans cDNA yk9e10.3; multiple regions of similarity to EGF-like repeats and cysteine-rich repeats   | 2.5     |
| 1184   | 4539761   | (AF118391) salivary peroxidase  | 2.5     |
| 1185   | 101919    | mating-type locus protein b3 - smut fungus  | 2.1     |
| 1186   | 329876    | (M32084) polyprotein [Hepatitis C virus]  | 1.5     |
| 1187   | 3881059   | (AL023844) similar to Ion transport proteins [Caenorhabditis]   | 1.4     |
| 1188   | 2981221   | (AF053091) eyelid [Drosophila melanogaster]   | 1.4     |
| 1189   | 4566750   | (AF115773) basic helix-loop-helix transcription factor Ndr1b [Danio]  | 1.4     |
| 1190   | 552072    | (M13235) abl-like putative oncogene; putative   | 0.62    |
| 1191   | 1438951   | (U61842) cutinase negative acting protein [Fusarium solani f. sp. (Z70207) predicted using Genefinder; similar to collagen; cDNA EST EMBL:D65905 comes from this gene; cDNA EST EMBL:D65858 comes from this gene; cDNA EST EMBL:D69306 comes from this gene; cDNA EST EMBL:D65755 comes from this | 0.025   |
| 1192   | 3875904   | (AF067217) contains similarity to myosin head (motor) domains (Pfam: myosin_head.hmm score: 602.72, 40.38 and 128.290) and phorbol esters/diacylglycerol binding domains (Pfam: DAG_PE-bind.hmm, score: 21.52 and 36.32)  | 0.002   |
| 1193   | 3150503   | proline-rich protein - mouse proline-rich protein [Mus musculus]  | 5e-005  |
| 1194   | 110849    | (AF049910) TACCI [Homo sapiens]   | 7e-011  |
| 1195   | 3435157   | (AF014903) NADH dehydrogenase subunit 2 [Pan troglodytes]   | 5e-011  |
| 1196   | 3287336   | >gi 3287338 (AF014904) NADH dehydrogenase subunit 2 [Pan (AF125443) contains similarity to S. pombe phosphatidyl synthase (GB:Z28295) [Caenorhabditis elegans]  | 2e-011  |
| 1197   | 4226073   | (U29488) C56C10.3 gene product [Caenorhabditis elegans]   | 2e-011  |
| 1198   | 868241    | (AB020063) Keap1 [Mus musculus]   | 5e-012  |
| 1199   | 3894323   | PUTATIVE AMINOPEPTIDASE ZK353.6 IN CHROMOSOME III >gi 1078908 pir S44657 ZK353.6 protein - Caenorhabditis elegans >gi 289760 (L15313) homology with leucine aminopeptidase; coded for by C. elegans cDNAs CE2F12 (GenBank: Z14714) and CE15D11  | 3e-014  |
| 1200   | 466102    | (AF053768) brain specific cortactin-binding protein CBP90 [Rattus]  | 2e-016  |
| 1201   | 3608372   | (AF072709) putative oxidoreductase [Streptomyces lividans]  | 2e-019  |
| 1202   | 3293547   | (AF125568) tumor suppressing STF cDNA 4 [Homo sapiens]  | 3e-031  |
| 1203   | 4567068   | reserved >gi 3928762 dbj BAA34703   | 1e-048  |
| 1204   | 4507851   | (AF081788) putative spliceosome associated protein [Homo sapiens]   | 4e-051  |
| 1205   | 3746791   | >gi 3985930 dbj BAA34863  (AB020623) DAM1 [Homo sapiens]  | 2e-064  |
| 1206   | 3851703   | (AF100421) p80 [Rattus norvegicus]  | 3e-071  |
| 1207   | 4519883   | (AB017970) dipeptidyl peptidase III (Z98763) putative Inositol polyphosphate phosphatase [Schizosaccharomyces pombe]  | 9.1     |
| 1245   | 2370558   | NADH dehydrogenase subunit I - maize  | 8.3     |
| 1246   | 1076815   | (L25658) ORF [Blueberry scorch virus]   | 8.3     |
| 1247   | 409711    | (AF098293) pyruvate decarboxylase   | 8.3     |
| 1248   | 4323053   |   |         |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 1249   | 2493794   | C4B-BINDING PROTEIN BETA CHAIN PRECURSOR<br>>gi 2143627 pir  S57960 C4BP protein beta chain precursor - rat<br>>gi 899382 emb CAA90392  (Z50052) C4BP beta chain, leader   | 8.2     |
| 1250   | 1703342   | APOLIPOPROTEIN D PRECURSOR   | 6.8     |
| 1251   | 133652    | PROBABLE RNA-DIRECTED RNA POLYMERASE polymerase<br>(EC 2.7.7.48) - southern bean mosaic virus mosaic virus]  | 6.6     |
| 1252   | 2128472   | hypothetical protein MJ0749 - Methanococcus jannaschii<br>>gi 1591462 (U67520) conserved hypothetical protein  | 6.5     |
| 1253   | 2499265   | NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 4<br>>gi 1182022 emb CAA56534  (X80245) ND4 [Locusta migratoria]  | 6.4     |
| 1254   | 1098322   | Ran/TC4-binding nucleopore protein [Homo sapiens]  | 5.3     |
| 1255   | 283518    | homeotic protein smox-5 - fluke (Schistosoma mansoni) >gi 161110<br>(M85304) homeodomain protein   | 5.2     |
| 1256   | 119714    | EXTENSIN PRECURSOR (CELL WALL HYDROXYPROLINE-<br>RICH GLYCOPROTEIN) >gi 82169 pir  S06733 hydroxyproline-rich<br>glycoprotein precursor - common tobacco >gi 19867 emb CAA32090 <br>(X13885) extensin (AA 1-620) [Nicotiana tabacum] | 4.9     |
| 1257   | 1176529   | HYPOTHETICAL 100.9 KD PROTEIN C34E10.3 IN<br>CHROMOSOME III >gi 500726 (U10402) C34E10.3 gene product  | 4.8     |
| 1258   | 116922    | COPPER RESISTANCE PROTEIN B PRECURSOR<br>>gi 77826 pir  B32018 copper resistance protein B precursor -   | 3.8     |
| 1259   | 1352916   | HYPOTHETICAL 19.0 KD PROTEIN IN NNF1-STE24<br>INTERGENIC REGION >gi 1077909 pir  S57138 hypothetical<br>protein YJR115w - yeast (Saccharomyces cerevisiae)<br>>gi 1015833 emb CAA89645  (Z49615) ORF YJR115w                         | 3.7     |
| 1260   | 184111    | (M20677) Kruppel-related protein (AA at 172) [Homo sapiens]  | 3.7     |
| 1261   | 122137    | BOLA CLASS I HISTOCOMPATIBILITY ANTIGEN, ALPHA<br>CHAIN BL3-6 PRECURSOR antigen alpha chain precursor (BL3-6)  | 3.6     |
| 1262   | 1086822   | (U41263) this gene lies in the intron of T19D12.4 and on the opposite<br>strand; strong similarity to casein kinases and to C. elegans proteins<br>C03C10.2, F41G3.5 and ZK507.1   | 3       |
| 1263   | 3257206   | (AP000003) 338aa long hypothetical protein   | 3       |
| 1264   | 4493896   | (AL034558) predicted using hexExon; MAL3P2.18 (PFC0245c),<br>Hypothetical protein, len: 3934 aa  | 2.8     |
| 1265   | 732330    | GENERAL STRESS PROTEIN A Bacillus subtilis<br>>gi 580866 emb CAA51568  (X73124) ipa-12d [Bacillus subtilis]  | 2.2     |
| 1266   | 4155225   | (AE001499) putative ROD SHAPE-DETERMINING PROTEIN  | 2.1     |
| 1267   | 2224448   | (AB001684) ORF54c [Chlorella vulgaris]   | 1.4     |
| 1268   | 3406654   | (AF079369) transcriptional repressor TUP1 [Dictyostelium   | 1.4     |
| 1269   | 3335561   | (AF069736) PCAF associated factor 65 beta [Homo sapiens]   | 1.3     |
| 1270   | 2326171   | (U62794) CDC42 GAP-related protein [Homo sapiens]  | 1.3     |
| 1271   | 3406654   | (AF079369) transcriptional repressor TUP1 [Dictyostelium   | 1.2     |
| 1272   | 2145956   | probable phosphomannomutase (EC 5.4.2.8) - Mycobacterium leprae<br>>gi 467178 (U00022) u0308b; L308 F1 13 [Mycobacterium leprae]   | 1       |
| 1273   | 2649256   | (AE001012) GMP synthase (guaA-2) [Archaeoglobus fulgidus]  | 1       |
| 1274   | 3451437   | (AL031350) putative secreted protein   | 0.76    |
| 1275   | 1653006   | (D90910) hypothetical protein  | 0.21    |
| 1276   | 1001821   | (D64005) nickel resistance [Synechocystis sp.]   | 0.14    |
| 1277   | 1123087   | (U42436) C49H3.3 gene product [Caenorhabditis elegans]   | 0.013   |
| 1278   | 1123087   | (U42436) C49H3.3 gene product [Caenorhabditis elegans]   | 0.0004  |
| 1279   | 183894    | (M69054) insulin-like growth factor binding protein 6  | 7e-005  |
| 1280   | 3608372   | (AF053768) brain specific cortactin-binding protein CBP90 [Rattus  | 9e-011  |
| 1281   | 3114818   | (AJ005891) JM2 [Homo sapiens]  | 5e-011  |
| 1282   | 3608372   | (AF053768) brain specific cortactin-binding protein CBP90 [Rattus  | 7e-016  |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 1283   | 3608372   | (AF053768) brain specific cortactin-binding protein CBP90 [Rattus  | 2e-016  |
| 1284   | 3649741   | (AJ000281) mucin [Homo sapiens]  | 2e-031  |
| 1285   | 4240307   | (AB020716) KIAA0909 protein [Homo sapiens]   | 1e-043  |
| 1286   | 4240307   | (AB020716) KIAA0909 protein [Homo sapiens]   | 1e-043  |
| 1287   | 3649741   | (AJ000281) mucin [Homo sapiens]  | 1e-047  |
| 1288   | 4557535   | down-regulated in adenoma protein down-regulated in adenoma (DRA) - human >gi 291964 576-580, 579-583; acidic transcr. activ. domain 620-640;; homeobox motif 653-676 [Homo sapiens]   | 1e-060  |
| 1324   | 3879589   | (Z50875) Proline rich domain; cDNA EST EMBL:D35637 comes from this gene; cDNA EST yk322a3.5 comes from this gene; cDNA EST yk397b2.5 comes from this gene; cDNA EST yk348b11.5 comes from this gene; cDNA EST yk397b2.3 comes from ... | 9.9     |
| 1325   | 3879505   | (AL023816) T05G11.4 [Caenorhabditis elegans]   | 9.4     |
| 1326   | 1346035   | FOS-RELATED ANTIGEN-1 >gi 998348   | 8       |
| 1327   | 2648784   | (AE000981) dipeptide ABC transporter, dipeptide-binding protein (dppA) [Archaeoglobus fulgidus]  | 7.9     |
| 1328   | 142774    | (L07023) delta-endotoxin [Bacillus thuringiensis]  | 7.9     |
| 1329   | 2648784   | (AE000981) dipeptide ABC transporter, dipeptide-binding protein (dppA) [Archaeoglobus fulgidus]  | 7.9     |
| 1330   | 3874201   | (Z81015) predicted using Genefinder  | 7.7     |
| 1331   | 2358287   | (AF010404) ALR [Homo sapiens]  | 7.7     |
| 1332   | 3881262   | (AL021175) Y6E2A.6 [Caenorhabditis elegans]  | 6       |
| 1333   | 974143    | (L42542) RLIP76 protein [Homo sapiens]   | 6       |
| 1334   | 3287188   | (Y10601) ankyrin-like protein [Homo sapiens]   | 6       |
| 1335   | 730684    | UBIQUITIN-PROTEIN LIGASE RSP5 yeast (Saccharomyces cerevisiae) >gi 603364 (U18916) Rsp5p [Saccharomyces cerevisiae]  | 4.6     |
| 1336   | 1255865   | (U53340) coded for by C. elegans cDNA yk39e8.5; weakly similar to C. elegans proteins F09G8.4 and F02E8.6  | 3.6     |
| 1337   | 2687999   | (AE001123) B. burgdorferi predicted coding region BB0110   | 3.3     |
| 1338   | 623044    | (L38896) This CDS feature is included to show the translation of the corresponding V_region. Presently translation qualifiers on V_region features are illegal   | 3.1     |
| 1339   | 987050    | (X65335) lacZ [Cloning vector pSV-beta-Galactosidase Control]  | 2.7     |
| 1340   | 1136390   | (D79986) similar to human DNA-binding protein 5. [Homo sapiens]  | 2.6     |
| 1341   | 3599395   | (AF083072) histone H1 DNA binding protein [Cenarchaeum   | 1.4     |
| 1342   | 1144514   | (U34781) Antho-LWamidIII prehormone [Anthopleura elegantissima] >gi 1586846 prf 2204411A prepro-hormone  | 1.2     |
| 1343   | 3406654   | (AF079369) transcriptional repressor TUP1 [Dictyostelium   | 0.98    |
| 1344   | 3132825   | (AF063403) putative cytosine-5 DNA methyltransferase [Zea mays]  | 0.89    |
| 1345   | 1754989   | (U47661) proline-rich protein PRP2 precursor [Lupinus luteus]  | 0.078   |
| 1346   | 728834    | !!!! ALU SUBFAMILY SB2 WARNING ENTRY   | 0.025   |
| 1347   | 1123087   | (U42436) C49H3.3 gene product [Caenorhabditis elegans]   | 0.021   |
| 1348   | 3608372   | (AF053768) brain specific cortactin-binding protein CBP90 [Rattus  | 1e-009  |
| 1349   | 4507029   | sodium bicarbonate cotransporter 2 >gi 3097316 dbj BAA25898  (AB012130) sodium bicarbonate cotransporter2 [Homo sapiens]   | 5e-016  |
| 1350   | 2781381   | (AC004013) Similar to rabbit A-kinase-anchoring protein sapiens]   | 1e-029  |
| 1351   | 4584423   | (AJ131693) AKAP450 protein [Homo sapiens]  | 3e-052  |
| 1359   | 1518135   | (U66260) multidrug resistance related protein 1  | 5.2     |
| 1362   | 3450974   | (AF082496) interleukin-2 [Marmota monax]   | 6.8     |
| 1363   | 1123087   | (U42436) C49H3.3 gene product [Caenorhabditis elegans]   | 0.001   |
| 1364   | 119760    | COAGULATION FACTOR X PRECURSOR 3.4.21.6) precursor - chicken >gi 222870 dbj BAA00724   | 2       |
| 1367   | 3861111   | (AJ235272) unknown [Rickettsia prowazekii]   | 5.5     |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 1370   | 117143    | CYTOCHROME P450 1A1 (CYPIA1) rainbow trout >gi 213780 (M21310) cytochrome P450IA1   | 7.1     |
| 1371   | 3915910   | HYPOTHETICAL 36.3 KD PROTEIN IN NRDC-MOBD INTERGENIC REGION >gi 1667570 (U76612) unknown  | 5.4     |
| 1372   | 1708230   | HOMEBOX PROTEIN ABDOMINAL-A   | 4.1     |
| 1373   | 3024292   | RHODOPSIN >gi 2290717 (AF000947) rhodopsin [Sepia officinalis]  | 5.3     |
| 1374   | 2996206   | (AF053723) region 2 capsular polysaccharide biosynthesis protein [Actinobacillus pleuropneumoniae]  | 2.3     |
| 1375   | 2228750   | (U93868) RNA polymerase III subunit [Homo sapiens]  | 5e-011  |
| 1379   | 79960     | hypothetical 30.5K protein - Enterococcus faecalis plasmid pAM-beta-1 >gi 3023044 (AF007787) orfC   | 2e-025  |
| 1380   | 465532    | HYPOTHETICAL 14.2 KD PROTEIN IN BLAB 3'REGION >gi 282541 pir  C41855 orf3 - Streptomyces cacaoi >gi 217001 dbj BAA00776  (D00937) regulatory protein for beta-COAT PROTEIN PRECURSOR (CAPSID PROTEIN) >gi 535774 (L09205) capsid protein [Tobacco ringspot virus] | 5.7     |
| 1381   | 3913279   | (AL034368) predicted using hexExon; L779.1, Serine/threonine protein kinase, len: 1359 aa; Similarity to protein kinases. A.thaliana NPK1-related protein kinase (TR:O22041) BLAST score: 303, sum  | 0.66    |
| 1389   | 4493762   | PROLINE-RICH PROTEIN MP-3 >gi 200549  | 4.6     |
| 1390   | 131002    | isp3 protein - fission yeast  | 0.1     |
| 1391   | 632098    | HYPOTHETICAL 6.1 KD PROTEIN C03B1.10 IN CHROMOSOME X >gi 1072242 (U40952) C03B1.10 gene product   | 4.5     |
| 1392   | 2496862   | (AF100421) p80 [Rattus norvegicus]  | 6e-006  |
| 1393   | 3851703   | (AL034368) predicted using hexExon; L779.1, Serine/threonine protein kinase, len: 1359 aa; Similarity to protein kinases. A.thaliana NPK1-related protein kinase (TR:O22041) BLAST score: 303, sum  | 4e-056  |
| 1399   | 4493762   | PAIRED BOX PROTEIN PAX-1  | 4.3     |
| 1400   | 129648    | (D89861) cytochrome C-type biogenesis protein CCMF [Cyanidioschyzon merolae]  | 4.3     |
| 1401   | 4115789   | T-CELL RECEPTOR BETA CHAIN PRECURSOR precursor (ANA   | 1.9     |
| 1402   | 135514    | (U41264) coded for by C. elegans cDNA CEESN26F; coded for by C. elegans cDNA CEESI89F; similar to 60S acidic ribosomal protein Po (L10) [Caenorhabditis elegans]  | 0.034   |
| 1403   | 1086833   | (AF033339) UNC-45 [Caenorhabditis briggsae]   | 3e-009  |
| 1404   | 4104168   | HYPOTHETICAL PROTEIN HI1452 Haemophilus influenzae (strain Rd KW20) >gi 1574290   | 7e-013  |
| 1410   | 1175805   | HOMEBOX PROTEIN ABDOMINAL-A   | 7.3     |
| 1411   | 1708230   | MYOSIN II HEAVY CHAIN, NON MUSCLE heavy chain [Dictyostelium discoideum]  | 4.2     |
| 1412   | 127774    | !!!! ALU SUBFAMILY SB1 WARNING ENTRY  | 0.56    |
| 1413   | 728833    | (AC004611) Hsp27 ERE-TATA-binding protein [Homo sapiens]  | 0.48    |
| 1414   | 3080645   | (AL031786) putative atp dependent rna helicase [Schizosaccharomyces pombe]  | 3e-008  |
| 1415   | 3687476   | down-regulated in adenoma protein down-regulated in adenoma (DRA) - human >gi 291964 576-580, 579-583; acidic transcr. activ. domain 620-640;; homeobox motif 653-676 [Homo sapiens]  | 1e-014  |
| 1416   | 4557535   | (AF002109) hypothetical protein [Arabidopsis thaliana]  | 5e-060  |
| 1421   | 2088648   | (Y08256) orf c01038 [Sulfolobus solfataricus]   | 6.9     |
| 1422   | 1707768   | (AB008674) mBlm [Mus musculus]  | 5.3     |
| 1423   | 3370996   | (Z69663) Weak similarity to Cotton isocitrate lyase (SW:ACEA_GOSHI); cDNA EST EMBL:D33259 comes from this gene; cDNA EST EMBL:D35346 comes from this gene; cDNA EST EMBL:D36032 comes from this gene; cDNA EST EMBL:D73253  | 4       |
| 1424   | 3878128   |   | 1.8     |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 1425   | 83996     | hypothetical protein 1 (CYb-COII intergenic region) -              |         |
| 1426   | 1322210   | Sauroleishmania tarentolae mitochondrion uncertain [Leishmania     | 1.8     |
| 1427   | 3043810   | (U26347) immunoglobulin kappa, VJ region [Homo sapiens]            | 1.4     |
| 1428   | 3080645   | (U88273) NADH dehydrogenase subunit 4 [Sceloporus aeneus]          | 0.46    |
|        |           | (AC004611) Hsp27 ERE-TATA-binding protein [Homo sapiens]           | 0.0007  |
| 1429   | 4506223   | proteasome (prosome, macropain) 26S subunit, non-ATPase, 13        |         |
|        |           | >gi 3618343 dbj BAA33214   | 1e-066  |
| 1438   | 2944430   | (AF050157) butyrophilin-like [Mus musculus]                        | 8.9     |
| 1439   | 1652823   | (D90908) hypothetical protein                                      | 3       |
|        |           | EXTENSIN PRECURSOR (CELL WALL HYDROXYPROLINE-                      |         |
|        |           | RICH GLYCOPROTEIN) >gi 82169 pir S06733 hydroxyproline-rich        |         |
|        |           | glycoprotein precursor - common tobacco >gi 19867 emb CAA32090     |         |
| 1440   | 119714    | (X13885) extensin (AA 1-620) [Nicotiana tabacum]                   | 0.9     |
| 1441   | 509813    | (L29010) ORFB [Cryphonectria hypovirus]                            | 0.78    |
| 1442   | 238617    | (S64572) nonfibrillar collagen Partial, 907 aa [Strongylocentrotus | 0.2     |
| 1443   | 3522970   | (U42390) Trio [Homo sapiens]                                       | 0.12    |
| 1449   | 3328726   | (AE001303) ATP Synthase Subunit E [Chlamydia trachomatis]          | 8.6     |
| 1450   | 501174    | (L33965) MHC class II protein [Morone saxatilis]                   | 8.5     |
| 1451   | 2661685   | (AL009199) hypothetical protein SC7B7.10                           | 8.5     |
| 1452   | 1575684   | (U70316) IonA [Dictyostelium discoideum]                           | 8.4     |
|        |           | hypothetical protein MJ0749 - Methanococcus jannaschii             |         |
| 1453   | 2128472   | >gi 1591462 (U67520) conserved hypothetical protein                | 5       |
| 1454   | 1549329   | (U52845) class IV chitinase EP3-1/H5 [Daucus carota]               | 4.9     |
| 1455   | 3845167   | (AE001390) hypothetical protein [Plasmodium falciparum]            | 2.9     |
|        |           | PUTATIVE IMPORTIN ALPHA SUBUNIT for by C. elegans                  |         |
|        |           | cDNA yk117h8.5; coded for by C. elegans cDNA yk8f10.5; coded       |         |
|        |           | for by C. elegans cDNA yk134a4.5; coded for by C. elegans cDNA     |         |
| 1456   | 2833306   | yk53c4.5; coded for by C. elegans cDNA yk8f10.3; coded for by C.   | 1.7     |
|        |           | HYPOTHETICAL 34.2 KD PROTEIN F07F6.2 IN                            |         |
| 1463   | 1731097   | CHROMOSOME III >gi 746449 (U23486) No definition line found        | 8.3     |
| 1464   | 4321805   | (AF063232) variant 1 major surface glycoprotein [Pneumocystis      | 8.3     |
| 1465   | 4557059   | (AC007154) hypothetical protein                                    | 4.8     |
| 1466   | 139372    | ENDOPROTEASE (LATE L3 23 KD PROTEIN) adenovirus type 7]            | 4.8     |
| 1467   | 8509      | (X04813) CAD protein (AA 1 - 2236) [Drosophila melanogaster]       | 3.6     |
| 1468   | 422690    | myosin-binding protein H - chicken                                 | 2e-005  |
| 1472   | 265108    | (S54379) sucrose-phosphate synthase, SPS oleracea]                 | 2.1     |
|        |           | HYPOTHETICAL 73.3 KD PROTEIN C6G9.14 IN                            |         |
| 1473   | 2842704   | CHROMOSOME I >gi 1644326 emb CAB03616.1  protein                   | 1.6     |
|        |           | NEURONAL ACETYLCHOLINE RECEPTOR PROTEIN, NON-                      |         |
|        |           | ALPHA-3 CHAIN PRECURSOR (GFN-ALPHA-3) non-alpha-3                  |         |
| 1474   | 113109    | chain precursor - goldfish >gi 212956 auratus]                     | 0.7     |
|        |           | down-regulated in adenoma protein down-regulated in adenoma        |         |
|        |           | (DRA) - human >gi 291964 576-580, 579-583; acidic transcr. activ.  |         |
| 1475   | 4557535   | domain 620-640.; homeobox motif 653-676 [Homo sapiens]             | 1e-051  |
| 1485   | 2315339   | (AF016438) contains similarity to C4-type zinc fingers             | 9.9     |
|        |           | HYPOTHETICAL 23.0 KD PROTEIN IN IXR1-TFA1                          |         |
|        |           | INTERGENIC REGION >gi 539152 pir S37847 hypothetical protein       |         |
|        |           | YKL030w - yeast (Saccharomyces cerevisiae)                         |         |
| 1486   | 549664    | >gi 486029 emb CAA81864  (Z28029) ORF YKL030w                      | 4.4     |
| 1487   | 4204234   | (AF035379) MADS-box protein 2 [Lolium temulentum]                  | 0.51    |
|        |           | LORICRIN >gi 110649 pir A35628 loricrin - mouse >gi 198871         |         |
| 1488   | 126390    | (M34398) loricrin [Mus musculus] >gi 520480 (U09189) loricrin      | 0.14    |



Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 1489   | 4557535   | down-regulated in adenoma protein down-regulated in adenoma (DRA) - human >gi 291964 576-580, 579-583; acidic transcr. activ. domain 620-640.; homeobox motif 653-676 [Homo sapiens]   | 4e-050  |
| 1492   | 1707768   | (Y08256) orf c01038 [Sulfolobus solfataricus]  | 4.3     |
| 1493   | 4376203   | (U35226) putative cytochrome P-450   | 4.3     |
| 1494   | 3721884   | (AB016248) sterol-C5-desaturase [Mus musculus]   | 4.2     |
| 1495   | 131000    | ACIDIC PROLINE-RICH PROTEIN PRECURSOR salivary protein [Rattus norvegicus]   | 3.3     |
| 1496   | 3123638   | (AJ223069) TCF-3 protein [Mus musculus]  | 0.49    |
| 1497   | 854065    | (X83413) U88 [Human herpesvirus 6]   | 5e-010  |
| 1501   | 126679    | GALECTIN-3 (GALACTOSE-SPECIFIC LECTIN 3) (MAC-2 ANTIGEN) (IGE-BINDING PROTEIN) (35 KD LECTIN) (CARBOHYDRATE BINDING PROTEIN 35) (CBP 35) GALACTOSIDE-BINDING LECTIN) >gi 1072481 pir A28651 (Z83819) dJ146H21.2 (similar to CYTOCHROME B-245 HEAVY CHAIN) [Homo sapiens] | 0.21    |
| 1502   | 4106562   | (S54379) sucrose-phosphate synthase, SPS oleracea]   | 1e-011  |
| 1504   | 265108    | (X95466) CPG2 protein [Rattus norvegicus]  | 1.6     |
| 1505   | 1177322   | (Z99942) similar to von Willebrand factor type A domain; cDNA EST yk412d4.5 comes from this gene; cDNA EST yk412d4.3 comes from this gene [Caenorhabditis elegans]   | 0.0002  |
| 1507   | 3878057   | (AF024503) No definition line found [Caenorhabditis elegans]   | 0.039   |
| 1509   | 2394509   | (U79229) NADH dehydrogenase subunit F [Tradescantia zebrina]   | 6.1     |
| 1510   | 2827872   | (AF017777) tweety [Drosophila melanogaster]  | 4.6     |
| 1511   | 3004653   | (Z83316) Similarity to S.pombe hypothetical protein C2F7.02C   | 3.7     |
| 1512   | 3873773   | HYPOTHETICAL 33.8 KD PROTEIN IN YSW1-RIB7 INTERGENIC REGION >gi 626526 pir S46023 hypothetical protein YBR152w - yeast (Saccharomyces cerevisiae)  | 1.6     |
| 1513   | 586295    | >gi 536480 emb CAA85111  (Z36021) ORF YBR152w  | 0.081   |
| 1519   | 3882147   | (AB018256) KIAA0713 protein [Homo sapiens]   | 9.9     |
| 1520   | 2117181   | (Z95584) mcr [Mycobacterium tuberculosis]  | 7.3     |
| 1521   | 1169862   | G-BOX BINDING FACTOR 3 >gi 600863 thaliana]  | 6       |
| 1522   | 3257950   | (AP000006) 236aa long hypothetical protein   | 6       |
| 1523   | 4138677   | (AJ009814) polymerase [Viral hemorrhagic septicemia virus]   | 5.9     |
| 1524   | 2736413   | (AF039044) No definition line found [Caenorhabditis elegans]   | 5.7     |
| 1525   | 2058691   | (U94836) ERPROT 213-21 [Homo sapiens]  | 2.7     |
| 1526   | 347124    | (L20967) phosphodiesterase [Homo sapiens]  | 2       |
| 1527   | 3913674   | FERRIC REDUCTASE TRANSMEMBRANE COMPONENT 3 PRECURSOR >gi 2132959 pir S67293 probable membrane protein YOR381w - yeast (Saccharomyces cerevisiae)   | 2       |
| 1528   | 1086636   | >gi 1420821 emb CAA99713  (Z75289) ORF YOR381w (U41013) similar to phosphoribosylaminoimidazolecarboxamide formyltransferase [Caenorhabditis elegans]  | 0.9     |
| 1529   | 2495706   | HYPOTHETICAL PROTEIN KIAA0136 product is novel. [Homo (AL034486) hypothetical fungal binuclear cluster domain protein [Schizosaccharomyces pombe]  | 0.86    |
| 1530   | 4007775   | !!!! ALU CLASS F WARNING ENTRY !!!!  | 0.65    |
| 1531   | 113671    | (U73522) AMSH [Homo sapiens]   | 0.39    |
| 1532   | 4098124   | SYNAPTOTAGMIN II   | 8e-008  |
| 1533   | 1174546   | (AF109134) 7-60 [Homo sapiens] >gi 4139272 (AF112980) 7-60   | 5e-010  |
| 1534   | 4139228   | (AB006628) KIAA0290 [Homo sapiens]   | 5e-044  |
| 1535   | 2564328   | (AJ007398) PBK1 protein [Homo sapiens]   | 3e-050  |
| 1536   | 3668141   | (AP000001) 158aa long hypothetical protein [Pyrococcus horikoshii]   | 3e-057  |
| 1544   | 3256484   | (AF015193) NADH dehydrogenase subunit 3 [Onchocerca volvulus]  | 9.1     |
| 1545   | 2735945   |  | 7.5     |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 1546   | 3983015   | (AF096056) antigen receptor [Ginglymostoma cirratum]   | 3.2     |
| 1547   | 1552169   | (D42138) PIG-B [Homo sapiens]  | 3       |
| 1548   | 2440180   | (Z99531) ubiquitin system protein  | 2.4     |
| 1549   | 3882159   | (AB018262) KIAA0719 protein [Homo sapiens]   | 1.8     |
| 1550   | 3004653   | (AF017777) tweety [Drosophila melanogaster]  | 1.3     |
| 1551   | 77657     | hypothetical 30.1K protein - Pseudomonas aeruginosa  | 0.26    |
| 1552   | 4098124   | (U73522) AMSH [Homo sapiens]   | 0.002   |
|        |           | (Z49967) cDNA EST EMBL:T00743 comes from this gene; cDNA EST EMBL:D69356 comes from this gene; cDNA EST EMBL:D65790 comes from this gene; cDNA EST EMBL:D70463 comes from this gene; cDNA EST EMBL:D66620 comes from this                                | 0.001   |
| 1553   | 3979818   | (AJ009947) putative ATPase [Homo sapiens]  | 1e-008  |
| 1555   | 4507507   | UNKNOWN >gi 3929583 (AF098162) timeless homolog [Homo  | 1e-035  |
|        |           | (AC002986) Contains similarity to membrane associated salt-inducible protein gb AF007269 from A. thaliana.   | 8.4     |
| 1562   | 3152567   | (AL034559) predicted using hexExon; MAL3P7.21 (PFC0960c),  |         |
| 1563   | 4493978   | Hypothetical protein, len: 1929 aa   | 5       |
| 1564   | 1169862   | G-BOX BINDING FACTOR 3 >gi 600863 thaliana]  | 4.7     |
|        |           | HYPOTHETICAL 259 KD PROTEIN (ORF 2136)   |         |
| 1565   | 140550    | >gi 81341 pir A05037 hypothetical protein 2136 - liverwort (Marchantia polymorpha) chloroplast polymorpha]   | 3.7     |
| 1566   | 2224354   | (AB001684) ORF104 [Chlorella vulgaris]   | 0.76    |
| 1567   | 106322    | hypothetical protein (L1H 3' region) - human   | 0.53    |
| 1568   | 3522937   | (AC004411) unknown protein [Arabidopsis thaliana]  | 0.4     |
| 1569   | 4097433   | (U61084) phorbol 3 [Homo sapiens]  | 4e-017  |
| 1578   | 1944122   | (AB002531) SSU1p [Saccharomyces cerevisiae]  | 9.7     |
| 1579   | 4127662   | (Y11176) fructosidase [Cichorium intybus]  | 5.3     |
|        |           | EPENDYMIN I PRECURSOR (EPD-I) rainbow trout >gi 213412 (M93697) ependymin  | 4.4     |
| 1580   | 119515    | (U64598) weakly similar to S. cervisiae PTM1 precursor   | 2.6     |
| 1582   | 2183261   | (AF002133) MAV264 [Mycobacterium avium]  | 2.3     |
|        |           | (AC000098) ESTs gb AA042402,gb ATTS1380 come from this gene. [Arabidopsis thaliana]  | 1.9     |
| 1583   | 2388564   | (U51723) V-SERA 1 [Plasmodium vivax]   | 9.8     |
| 1587   | 2496317   | HYPOTHETICAL PROTEIN MG144 HOMOLOG Mycoplasma pneumoniae (SGC3) (ATCC 29342) >gi 1674380 genitalium  | 0.65    |
| 1588   | 2496317   | HYPOTHETICAL PROTEIN MG144 HOMOLOG Mycoplasma pneumoniae (SGC3) (ATCC 29342) >gi 1674380 genitalium  | 0.64    |
| 1589   | 3184073   | (AL023779) hypothetical protein  | 8e-009  |
| 1590   | 3560165   | (AL031525) hypothetical protein  | 3.7     |
|        |           | RNA-DIRECTED RNA POLYMERASE (ORF1B) 2.7.7.48) - avian infectious bronchitis virus (strain Beaudette) >gi 292953 (M95169) pol protein [Avian infectious bronchitis virus] >gi 331173 (M94356) ORF 1b encodes a polypeptide of potential mol. wt. 300,000. | 9.7     |
| 1612   | 133594    | (AB011121) KIAA0549 protein [Homo sapiens]   | 6.8     |
| 1613   | 3043622   | translation elongation factor eEF-1 alpha chain factor 1-alpha (AA 1 - 461) [Mus musculus]   | 5.6     |
| 1614   | 72870     | (AF016441) No definition line found [Caenorhabditis elegans]   | 5.3     |
| 1615   | 2315365   | TRICHOHYALIN >gi 539701 pir A45973 trichohyalin - human  |         |
| 1616   | 586120    | >gi 292836 (L09190) trichohyalin   | 4.9     |
| 1617   | 281206    | nuclear antigen EBNA-3B - human herpesvirus 4  | 3.9     |
| 1618   | 2146731   | FK506-binding protein - Arabidopsis thaliana   | 3.5     |
| 1619   | 3876045   | (Z81506) similar to Lectin C-type domain short and long forms, CUB domain [Caenorhabditis elegans]   | 3.5     |

Table 2B



Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 1620   | 2833191   | LACCASE 4 PRECURSOR precursor - Rhizoctonia solani<br>>gi 1150568 emb CAA91042   | 3.3     |
| 1621   | 2981221   | (AF053091) eyelid [Drosophila melanogaster]  | 3.2     |
| 1622   | 1118179   | (U42304) chitin synthase [Phytophthora capsici]  | 2.9     |
| 1623   | 1351576   | HYPOTHETICAL PROTEIN MG419 Mycoplasma genitalium   | 2.9     |
| 1624   | 320309    | AL2 protein - beet curly top virus >gi 210683  | 2.5     |
| 1625   | 1523997   | (X99510) CDK4/6 kinase [Drosophila melanogaster]   | 2.1     |
| 1626   | 3646450   | (AL031603) conserved hypothetical protein.   | 2       |
| 1627   | 3599342   | (AF081112) ORF2 [Mus musculus domesticus]  | 1.9     |
| 1628   | 2114473   | (U96963) p140mDia [Mus musculus]   | 1.5     |
|        |           | (AC004877) sco-spondin-mucin-like; similar to P98167 uncertain<br>[Homo sapiens]   | 1       |
| 1629   | 3638957   | (AF024714) interferon-inducible protein [Homo sapiens]   | 0.93    |
| 1630   | 2558942   | (AP000005) 115aa long hypothetical protein   | 0.69    |
| 1631   | 3257709   | adenylylcyclase type V-alpha - dog >gi 290082  | 0.46    |
| 1632   | 346430    | (AC006068) hypothetical protein  | 0.3     |
| 1633   | 4263788   | myosin I beta - bullfrog >gi 602138 (U14549) myosin I beta [Rana<br>catesbeiana] >gi 603692 (U14382) myosin I beta [Rana catesbeiana]  | 0.044   |
| 1634   | 2134199   | myosin I beta - bullfrog >gi 602138 (U14549) myosin I beta [Rana<br>catesbeiana] >gi 603692 (U14382) myosin I beta [Rana catesbeiana]  | 0.036   |
| 1635   | 2134199   | (AJ010475) RNA helicase [Arabidopsis thaliana]   | 2e-006  |
| 1636   | 3776027   | ATP-DEPENDENT RRNA HELICASE SPB4 cerevisiae]<br>>gi 836754 dbj BAA09238  (D50617) rRNA helicase<br>[Saccharomyces cerevisiae] SPB4 [Saccharomyces cerevisiae]  | 1e-015  |
| 1637   | 134787    | ATP-DEPENDENT RRNA HELICASE SPB4 cerevisiae]<br>>gi 836754 dbj BAA09238  (D50617) rRNA helicase<br>[Saccharomyces cerevisiae] SPB4 [Saccharomyces cerevisiae]  | 4e-016  |
| 1638   | 134787    | (AF070661) HSPC005 [Homo sapiens]  | 2e-016  |
| 1639   | 4454698   | (AL033125) 1-evidence=predicted by content; 1-<br>method=genefinder;084; 1-evidence_end; 2-evidence=predicted by<br>match; 2-match_accession=SWISS-PROT:P38205; 2-<br>match_description=HYPOTHETICAL 77.9 KD PROTEIN IN                | 6e-021  |
| 1640   | 4185892   | (AB011084) KIAA0512 protein [Homo sapiens]   | 9e-041  |
| 1641   | 3043548   | (AF026209) similar to C. elegans olfactory receptor ODR-10<br>(NID:g1235900) [Caenorhabditis elegans]  | 7.3     |
| 1642   | 2435574   | (Z82055) similar to Zinc finger, C4 type   | 5.7     |
| 1643   | 3880252   | PUTATIVE FLAGELLA-RELATED PROTEIN C  | 4.5     |
| 1644   | 3023744   | HYPOTHETICAL 64.3 KD PROTEIN IN RPS3 3'REGION<br>(ORF516) >gi 419731 pir S34525 hypothetical protein 516 (rps3 3'<br>region) - Euglena gracilis chloroplast >gi 2673852 emb CAA50104 <br>(X70810) orf516; ttg start [Euglena gracilis] | 2       |
| 1645   | 267478    | hypothetical 237 protein (psbA 5' region) - rye chloroplast (fragment)<br>(U51993) similar drosophila lethal (2) giant larvae protien<br>(SP:Q08470) [Caenorhabditis elegans]  | 0.49    |
| 1646   | 82551     | All-1 protein +GTE form - mouse (fragment)   | 9.6     |
| 1647   | 1255792   | (D89861) cytochrome C-type biogenesis protein CCMF<br>[Cyanidioschyzon merolae]  | 6.3     |
| 1648   | 627837    | (U31081) MnxB [Bacillus sp.]   | 6       |
| 1649   | 4115789   | (D00570) open reading frame (196 AA) [Mus musculus]  | 5.8     |
| 1650   | 942618    | hypothetical protein II (retroposon LINE-1)  | 4.9     |
| 1651   | 220579    | hypothetical protein II (retroposon LINE-1)  | 4.8     |
| 1652   | 2120082   | (L10908) Gcap1 gene product [Mus musculus] marker protein [Mus   | 4.6     |
| 1653   | 2120082   | ARGININOSUCCINATE SYNTHASE argininosuccinate synthetase<br>(argG) homolog - Haemophilus influenzae (strain Rd KW20)  | 4.5     |
| 1654   | 862343    |  |         |
| 1655   | 1168540   |  |         |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 1671   | 160385    | (M63277) malaria antigen [Plasmodium falciparum]   | 4       |
| 1672   | 1177607   | (X92485) pva1 [Plasmodium vivax]   | 3.8     |
| 1673   | 2497678   | ZYXIN >gi 1430883 emb CAA67510   | 2.5     |
| 1674   | 4049518   | (AL031852) conserved hypothetical protein  | 2.1     |
| 1675   | 135514    | T-CELL RECEPTOR BETA CHAIN PRECURSOR precursor (ANA  | 0.55    |
| 1676   | 729942    | LIPASE 1 PRECURSOR (TRIACYLGLYCEROL LIPASE)<br>>gi 538817 pir A47081 triacylglycerol lipase  | 0.45    |
| 1677   | 4503629   | coagulation factor XII (Hageman factor)<br>>gi 119763 sp P00748 FA12_HUMAN COAGULATION FACTOR<br>XII PRECURSOR (HAGEMAN FACTOR) (HAF) 3.4.21.38<br>precursor - human >gi 180357 (M17466) coagulation factor XII                                    | 0.27    |
| 1678   | 1708392   | CASPASE-5 PRECURSOR (ICH-3 PROTEASE) (TY PROTEASE)<br>(ICE(REL)-III) enzyme ICERel-III - human >gi 903936 (U28015)<br>cysteine protease [Homo sapiens]   | 4e-006  |
| 1679   | 3550295   | (AJ009947) putative ATPase [Homo sapiens]  | 1e-008  |
| 1680   | 3875400   | (Z73906) cDNA EST EMBL:M88866 comes from this gene<br>[Caenorhabditis elegans]   | 1e-009  |
| 1681   | 3874685   | (Z78539) Similarity to S.pombe hypothetical protein C4G8.04<br>(SW:YAD4_SCHPO); cDNA EST EMBL:D27846 comes from this<br>gene; cDNA EST EMBL:D27845 comes from this gene; cDNA EST<br>yk202h7.3 comes from this gene; cDNA EST yk202h7.5 come...    | 6e-010  |
| 1682   | 3979818   | (Z49967) cDNA EST EMBL:T00743 comes from this gene; cDNA<br>EST EMBL:D69356 comes from this gene; cDNA EST<br>EMBL:D65790 comes from this gene; cDNA EST EMBL:D70463<br>comes from this gene; cDNA EST EMBL:D66620 comes from this                 | 2e-015  |
| 1683   | 4584877   | (AF068302) choline/ethanolaminephosphotransferase [Homo  | 5e-020  |
| 1685   | 3914503   | ASPARTATE CARBAMOYLTRANSFERASE 2 PRECURSOR<br>(ASPARTATE TRANSCARBAMYLASE 2) (ATCASE 2) sativum]   | 9.9     |
| 1686   | 1845893   | (U69426) envelope glycoprotein [Human immunodeficiency virus]  | 9.7     |
| 1687   | 1730629   | HYPOTHETICAL 43.0 KD PROTEIN B0361.6 IN<br>CHROMOSOME III >gi 458954 (U00031) similar to H. marismortui<br>hypothetical 23.1 kd protein in HMAL3 5' region [Caenorhabditis   | 5e-014  |
| 1690   | 2133580   | gag polyprotein - red flour beetle retrotransposon Woot >gi 805076<br>(U09586) ORF 1   | 1.1     |
| 1695   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein<br>[Nycticebus coucang]   | 6       |
| 1696   | 111816    | probable pol polyprotein-related protein 4 - rat<br>>gi 56590 emb CAA37647  (X53581) ORF4 [Rattus norvegicus]  | 5.3     |
| 1697   | 1517923   | (U51117) ascospore maturation 1 protein [Neurospora crassa]  | 5.3     |
| 1698   | 2924552   | (AL022018) 1-evidence=predicted by content; 1-<br>method=genefinder;084; 1-method_score=165.48; 1-evidence_end; 2-<br>evidence=predicted by match; 2-match_accession=AA264666; 2-<br>match_description=LD08351.5prime LD Drosophila melanogaste... | 6e-012  |
| 1699   | 1663706   | (D87685) similar to human transcription factor TFIIS (S34159).   | 2e-014  |
| 1700   | 3879850   | (Z81592) predicted using Genefinder  | 3e-034  |
| 1707   | 3184085   | (AL023781) cytochrome c oxidase polypeptide v precursor<br>[Schizosaccharomyces pombe]   | 8.7     |
| 1708   | 3845206   | (AE001400) novel protein kinase [Plasmodium falciparum]  | 3.9     |
| 1709   | 283435    | hypothetical protein DGF-1 - Trypanosoma cruzi cruzi]  | 3       |
| 1710   | 3329623   | (AF078790) No definition line found [Caenorhabditis elegans]   | 1.3     |
| 1711   | 2459999   | (AF013108) tubulin Uni3 [Chlamydomonas reinhardtii]  | 0.32    |
| 1712   | 1705447   | BACTENECIN 7 PRECURSOR (BAC7) aries]   | 0.26    |
| 1713   | 3043596   | (AB011108) KIAA0536 protein [Homo sapiens]   | 4e-022  |
| 1714   | 3879850   | (Z81592) predicted using Genefinder  | 3e-033  |

Table 2B

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 1724   | 987050    | (X65335) lacZ [Cloning vector pSV-beta-Galactosidase Control]  | 7.6     |
| 1725   | 1334582   | (X55026) ORF16; no ATG start codon   | 6.8     |
| 1726   | 2981631   | (AB012223) ORF2 [Canis familiaris]   | 5.2     |
| 1727   | 628300    | gene F protein - rinderpest virus virus]   | 4.8     |
| 1728   | 4008417   | (Z77669) Similarity to Human aminopeptidase N (SW:AMPN_HUMAN); cDNA EST EMBL:D36412 comes from this gene; cDNA EST EMBL:D37688 comes from this gene; cDNA EST EMBL:D34550 comes from this gene; cDNA EST EMBL:D33568                   | 3.9     |
| 1729   | 1170083   | PROBABLE GLOBAL TRANSACTIVATOR transactivator-like protein [Autographa californica nucleopolyhedrovirus]   | 3.4     |
| 1730   | 3757727   | (AL022727) dJ80I19.7 (olfactory receptor-like protein (hs6M1-3)) [Homo sapiens]  | 3.3     |
| 1731   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]  | 1.2     |
| 1732   | 130702    | LARGE STRUCTURAL PHOSPHOPROTEIN PHOSPHOPROTEIN (BPP) >gi 73955 pir XPBEA9 large structural phosphoprotein pp150 - human cytomegalovirus phosphoprotein 150   | 0.97    |
| 1733   | 1706571   | EPITHELIAL CHLORIDE CHANNEL PROTEIN calcium-activated chloride channel [Bos taurus]  | 0.87    |
| 1734   | 2981631   | (AB012223) ORF2 [Canis familiaris]   | 0.56    |
| 1735   | 1280072   | (U55366) coded for by C. elegans cDNA yk85a2.5; coded for by C. elegans cDNA yk85a2.3; Similar to cuticlin   | 0.44    |
| 1736   | 2496862   | HYPOTHETICAL 6.1 KD PROTEIN C03B1.10 IN CHROMOSOME X >gi 1072242 (U40952) C03B1.10 gene product  | 0.001   |
| 1737   | 2228750   | (U93868) RNA polymerase III subunit [Homo sapiens]   | 1e-007  |
| 1738   | 4503511   | UNKNOWN >gi 3264861 (U97670) eukaryotic translation initiation factor eIF3, p35 subunit [Homo sapiens]   | 4e-031  |
| 1739   | 4503511   | UNKNOWN >gi 3264861 (U97670) eukaryotic translation initiation factor eIF3, p35 subunit [Homo sapiens]   | 1e-032  |
| 1740   | 113667    | !!!! ALU CLASS B WARNING ENTRY !!!!  | 5.3     |
| 1742   | 2736375   | (AF039040) No definition line found [Caenorhabditis elegans]   | 6       |
| 1743   | 2736375   | (AF039040) No definition line found [Caenorhabditis elegans]   | 3.4     |
| 1744   | 1002672   | (U30261) G protein beta subunit-like; Method: conceptual translation supplied by author [Schistosoma mansoni]  | 5e-024  |
| 1752   | 4200151   | (AJ011538) hypothetical protein virus]   | 3.9     |
| 1753   | 134528    | SLP1 PROTEIN (VACUOLAR PROTEIN SORTING PROTEIN 33) >gi 101624 pir A34708 SLP1 protein SLP1 protein [Saccharomyces cerevisiae] >gi 173185   | 1.6     |
| 1754   | 1175386   | HYPOTHETICAL 37.7 KD PROTEIN C18B11.06 IN CHROMOSOME I >gi 2130289 pir S58305 hypothetical protein SPAC18B11.06 - fission yeast pombe]   | 0.13    |
| 1756   | 2909528   | (AL021932) PPE [Mycobacterium tuberculosis]  | 4.9     |
| 1760   | 3876797   | (Z81531) cDNA EST EMBL:D66579 comes from this gene; cDNA EST EMBL:D70408 comes from this gene; cDNA EST yk263d3.5 comes from this gene; cDNA EST yk275c1.5 comes from this gene; cDNA EST EMBL:C10270 comes from this gene [Caenorh... | 3.9     |
| 1770   | 3608418   | (AF086634) cyclin B [Dreissena polymorpha]   | 8.9     |
| 1771   | 416868    | CYTOKINE RECEPTOR COMMON BETA CHAIN PRECURSOR >gi 110595 pir A35782 cytokine receptor common beta chain precursor - mouse >gi 309101 (M34397) interleukin 3 receptor-like  | 4.3     |
| 1772   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]  | 2.9     |
| 1773   | 728834    | !!!! ALU SUBFAMILY SB2 WARNING ENTRY   | 1.9     |
| 1774   | 728836    | !!!! ALU SUBFAMILY SP WARNING ENTRY  | 0.3     |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 1775   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]  | 0.001   |
| 1776   | 3879850   | (Z81592) predicted using Genefinder  | 2e-037  |
| 1777   | 4155993   | (AE001560) putative [Helicobacter pylori J99]  | 1.4     |
| 1782   | 225047    | reverse transcriptase related protein [Homo sapiens]   | 2.2     |
| 1790   | 3785977   | (AC005560) putative growth regulator protein (AP000005) 617aa long hypothetical prolyl endopeptidase [Pyrococcus horikoshii]   | 9.4     |
| 1791   | 3257681   |  | 7.8     |
| 1792   | 2317972   | (U97553) capsid protein [murine herpesvirus 68]  | 1.5     |
| 1793   | 1085738   | cytochrome-c oxidase (EC 1.9.3.1) chain I - Trypanoplasma borreli mitochondrion (SGC6) >gi 563140 borreli]   | 0.014   |
| 1794   | 4493973   | (AL034559) predicted using hexExon; MAL3P7.14 (PFC0925w), Hypothetical protein, len: 489 aa  | 0.002   |
| 1800   | 461796    | CYTOCHROME C OXIDASE POLYPEPTIDE III honeybee mitochondrion (SGC4) >gi 552443 (L06178) cytochrome oxidase subunit 3 [Apis mellifera ligustica]   | 9.1     |
| 1801   | 1850592   | (U88295) carnitine palmitoyltransferase II [Rattus norvegicus]   | 9       |
| 1802   | 207854    | (M35837) alpha-amylase/alpha-galactosidase fusion protein Ksp-cadherin - rabbit >gi 902886 (U28945) Ksp-cadherin [Oryctolagus cuniculus] cuniculus]  | 8.7     |
| 1803   | 2136989   |  | 3.4     |
| 1804   | 288448    | (X06487) bcl2-Ig fusion gene [Homo sapiens]  | 3.4     |
| 1805   | 1657752   | (U62325) FE65-like protein [Homo sapiens]  | 2.1     |
| 1806   | 2981631   | (AB012223) ORF2 [Canis familiaris]   | 5e-007  |
| 1807   | 4502103   | annexin 31 XXXI [Homo sapiens]   | 1e-043  |
| 1808   | 2149830   | (U92864) maturase [Quercus rubra]  | 9.6     |
| 1809   | 2981631   | (AB012223) ORF2 [Canis familiaris]   | 0.046   |
| 1810   | 728832    | !!!! ALU SUBFAMILY SB WARNING ENTRY (Z98547) predicted using hexExon; MAL3P3.17 (PFC0420w), Calcium-dependent protein kinase, len: 591 aa; Similarity to calcium-dependent protein kinases. P.falciparum calcium-dependent protein kinase CDPK2 (TR:O15865) BLAST Sco... | 0.035   |
| 1813   | 3649769   |  | 2.1     |
| 1814   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]  | 1.6     |
| 1815   | 197968    | (M26361) LINE/Ig H-chain fusion protein [Mus musculus]   | 0.036   |
| 1816   | 2496862   | HYPOTHETICAL 6.1 KD PROTEIN C03B1.10 IN CHROMOSOME X >gi 1072242 (U40952) C03B1.10 gene product  | 0.001   |
| 1817   | 135514    | T-CELL RECEPTOR BETA CHAIN PRECURSOR precursor (ANA  | 0.0006  |
| 1818   | 3043596   | (AB011108) KIAA0536 protein [Homo sapiens]   | 4e-016  |
| 1821   | 728838    | !!!! ALU SUBFAMILY SX WARNING ENTRY (X92485) pva1 [Plasmodium vivax]   | 7       |
| 1822   | 1177607   |  | 0.23    |
| 1823   | 106323    | hypothetical protein (LIH 5' region) - human   | 0.071   |
| 1824   | 2981631   | (AB012223) ORF2 [Canis familiaris]   | 2e-009  |
| 1825   | 1086860   | (U41272) Similar to man(9)-alpha-mannosidase.  | 1e-032  |
| 1829   | 2258350   | (AF007261) SecY-type transporter protein [Reclinomonas   | 2.9     |
| 1830   | 1169643   | FMRFAMIDE-RELATED NEUROPEPTIDES PRECURSOR >gi 416208 (U03137) neuropeptide precursor FMRFamide-related LIPOATE-PROTEIN LIGASE A 6.3.4.-) A - Escherichia coli >gi 504496 (L27665) lipoate-protein ligase A [Escherichia coli]  | 0.026   |
| 1834   | 585424    |  | 7.1     |
| 1835   | 2981631   | (AB012223) ORF2 [Canis familiaris]   | 0.044   |
| 1841   | 4584540   | (AL049608) putative protein [Arabidopsis thaliana]   | 7.3     |
| 1842   | 4493975   | (AL034559) predicted using hexExon; MAL3P7.17 (PFC0940c), Hypothetical protein, len: 807 aa  | 3       |
| 1843   | 343539    | (M14820) NADH dehydrogenase subunit 4 [Trypanosoma brucei]   | 1.7     |
| 1844   | 3335138   | (AF047441) RNA polymerase I 40kD subunit [Homo sapiens]  | 1       |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 1852   | 2612897   | (AF015825) hypothetical ABC transporter [Bacillus subtilis]<br>>gi 2633579 emb CAB13082  (Z99110) similar to amino acid ABC transporter (ATP-binding protein)      | 5.9     |
| 1853   | 728836    | !!!! ALU SUBFAMILY SP WARNING ENTRY  | 1.2     |
| 1854   | 113668    | !!!! ALU CLASS C WARNING ENTRY !!!!  | 0.17    |
| 1855   | 728836    | !!!! ALU SUBFAMILY SP WARNING ENTRY  | 0.05    |
| 1856   | 106323    | hypothetical protein (L1H 5' region) - human   | 0.048   |
| 1857   | 2981631   | (AB012223) ORF2 [Canis familiaris]   | 0.0002  |
| 1859   | 729785    | HEXOSE TRANSPORTER HXT8 YJL214w - yeast (Saccharomyces cerevisiae) cerevisiae] >gi 1015600 emb CAA89511  (Z49489) ORF YJL214w [Saccharomyces cerevisiae]           | 0.12    |
| 1861   | 1791243   | (U83119) ORF2 consensus sequence encoding endonuclease and reverse transcriptase minus RNaseH [Rattus norvegicus]  | 4e-006  |
| 1862   | 854065    | (X83413) U88 [Human herpesvirus 6]   | 2e-006  |
| 1863   | 1707274   | (U80931) strong similarity to class-III of pyridoxal-phosphate-dependent aminotransferases   | 3e-032  |
| 1871   | 4049828   | (AF063866) ORF MSV145 hypothetical protein [Melanoplus sanguinipes entomopoxvirus]   | 5.6     |
| 1872   | 1109853   | (U41538) weak similarity to the S. cerevisiae activator 1 05 KD subunit (replication factor C 95 KD subunit)   | 4.5     |
| 1873   | 113668    | !!!! ALU CLASS C WARNING ENTRY !!!!  | 3.6     |
| 1874   | 1684995   | (U20663) NADH dehydrogenase subunit [Encyclia tampensis]   | 1.6     |
| 1875   | 3599325   | (AF081106) ORF1 [Mus musculus domesticus]  | 0.36    |
| 1876   | 160379    | (M63274) malaria antigen [Plasmodium falciparum]   | 0.16    |
| 1877   | 728837    | !!!! ALU SUBFAMILY SQ WARNING ENTRY  | 0.12    |
| 1878   | 2134199   | myosin I beta - bullfrog >gi 602138 (U14549) myosin I beta [Rana catesbeiana] >gi 603692 (U14382) myosin I beta [Rana catesbeiana]                                 | 0.036   |
| 1879   | 1872200   | (U22376) alternatively spliced product using exon 13A  | 0.009   |
| 1880   | 1938524   | (U97012) contains similarity to a ground domain, also weakly similar to drosophila fork head domain transcription factor SLP1 (SP:P32030) [Caenorhabditis elegans] | 0.17    |
| 1882   | 3510507   | (AF032382) metalloprotease-disintegrin [Xenopus laevis]  | 0.77    |
| 1883   | 728837    | !!!! ALU SUBFAMILY SQ WARNING ENTRY  | 0.33    |
| 1884   | 854065    | (X83413) U88 [Human herpesvirus 6]   | 1e-007  |
| 1886   | 728833    | !!!! ALU SUBFAMILY SB1 WARNING ENTRY   | 7.4     |
| 1887   | 1353178   | PUTATIVE SERINE/THREONINE PROTEIN PHOSPHATASE C27B7.6 IN CHROMOSOME IV serine/threonine protein phosphatase [Caenorhabditis elegans]                               | 7.2     |
| 1888   | 728837    | !!!! ALU SUBFAMILY SQ WARNING ENTRY  | 7e-009  |
| 1890   | 435942    | (U04295) DNA-binding factor of bZIP class [Oryza sativa]   | 1       |
| 1891   | 728832    | !!!! ALU SUBFAMILY SB WARNING ENTRY  | 0.94    |
| 1892   | 3599347   | (AF081114) ORF2 [Mus musculus domesticus]  | 0.55    |
| 1893   | 728837    | !!!! ALU SUBFAMILY SQ WARNING ENTRY  | 0.056   |
| 1894   | 1196432   | (M22333) unknown protein [Homo sapiens]  | 0.002   |
| 1895   | 728838    | !!!! ALU SUBFAMILY SX WARNING ENTRY  | 0.004   |
| 1901   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY   | 8       |
| 1902   | 3646450   | (AL031603) conserved hypothetical protein.   | 7e-028  |
| 1903   | 2213560   | (Z97052) hypothetical protein  | 5e-026  |
| 1905   | 3002527   | (AF010144) neuronal thread protein AD7c-NTP [Homo sapiens]   | 0.066   |
| 1906   | 2072977   | (U93574) putative p150 [Homo sapiens]  | 0.022   |
| 1907   | 728835    | !!!! ALU SUBFAMILY SC WARNING ENTRY  | 0.019   |
| 1908   | 4153886   | (AB013357) 49 kDa zinc finger protein [Mus musculus]   | 2e-005  |
| 1910   | 2072974   | (U93573) p40 [Homo sapiens]  | 2       |
| 1911   | 728837    | !!!! ALU SUBFAMILY SQ WARNING ENTRY  | 0.011   |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 1914   | 4572297   | (AF071799) T-cell surface glycoprotein CD4 precursor   | 6       |
| 1915   | 1350904   | RIBOSOME RECYCLING FACTOR (RIBOSOME RELEASING FACTOR) (RRF) >gi 1361841 pir A64248 ribosome releasing factor Mycoplasma genitalium (SGC3) releasing factor (fir) [Mycoplasma     | 3.7     |
| 1916   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY   | 1.4     |
| 1917   | 728832    | !!!! ALU SUBFAMILY SB WARNING ENTRY  | 0.0006  |
| 1918   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]  | 4e-005  |
| 1919   | 1791243   | (U83119) ORF2 consensus sequence encoding endonuclease and reverse transcriptase minus RNaseH [Rattus norvegicus]  | 4e-009  |
| 1920   | 126295    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG   | 0.006   |
| 1921   | 348317    | ATPase 6 - Sauroleishmania tarentolae  | 7.7     |
| 1923   | 1723547   | HYPOTHETICAL 61.8 KD PROTEIN C12B10.03 IN CHROMOSOME I >gi 1262416 emb CAA94693  | 8.6     |
| 1924   | 1177607   | (X92485) pva1 [Plasmodium vivax]   | 4.9     |
| 1925   | 3068583   | (AF000580) Rep-like [Dictyostelium discoideum]   | 2.4     |
| 1926   | 2120082   | hypothetical protein II (retroposon LINE-1)  | 0.21    |
| 1927   | 1335198   | (X03145) pot. ORF III [Homo sapiens]   | 0.0003  |
| 1930   | 2134328   | ECH - chicken >gi 1037160 dbj BAA08364   | 8.3     |
| 1931   | 4502377   | B-cell growth factor 1 (12kD)  | 0.094   |
| 1932   | 3417289   | (U95740) Unknown gene product [Homo sapiens]   | 0.065   |
| 1933   | 565080    | (U14550) SThM [Homo sapiens]   | 0.006   |
| 1934   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY   | 7e-006  |
| 1935   | 3649741   | (AJ000281) mucin [Homo sapiens]  | 5e-020  |
| 1936   | 3551821   | (AF058803) mucin 4 [Homo sapiens]  | 8e-021  |
| 1937   | 4519443   | (AB017430) kinesin-like DNA binding protein [Homo sapiens]   | 3e-029  |
| 1939   | 1710216   | (U79260) unknown [Homo sapiens]  | 1e-005  |
| 1940   | 728837    | !!!! ALU SUBFAMILY SQ WARNING ENTRY  | 5e-008  |
| 1942   | 4494012   | (AL034559) predicted using hexExon; MAL3P7.32 (PFC1010w), Hypothetical protein, len: 1322 aa   | 4.5     |
| 1943   | 220578    | (D00570) open reading frame (251 AA) [Mus musculus]  | 0.077   |
| 1944   | 2731377   | (U28739) similar to alcohol dehydrogenase/ribitol dehydrogenase [Caenorhabditis elegans]   | 1e-028  |
| 1945   | 4587207   | (AB020527) Na/PO4 cotransporter homolog  | 4e-034  |
| 1948   | 728832    | !!!! ALU SUBFAMILY SB WARNING ENTRY  | 0.21    |
| 1949   | 929913    | (V01442) ribosomal protein S8 [Xenopus laevis]   | 0.066   |
| 1950   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY   | 2e-006  |
| 1951   | 1125754   | (U42833) coded for by C. elegans cDNA cm16f6; coded for by C. elegans cDNA CEESU63F; similar to S. cerevisiae SOF1 protein (SP:P33750) [Caenorhabditis elegans]                  | 1e-028  |
| 1952   | 4587207   | (AB020527) Na/PO4 cotransporter homolog  | 6e-047  |
| 1953   | 4587207   | (AB020527) Na/PO4 cotransporter homolog  | 2e-051  |
| 1955   | 2981631   | (AB012223) ORF2 [Canis familiaris]   | 0.027   |
| 1956   | 4138064   | (Y18301) reverse transcriptase [Ovine pulmonary adenocarcinoma zinc finger protein 140 (clone pHZ-39)  | 0.0002  |
| 1961   | 4507991   | >gi 1731416 sp P52738 Z140_HUMAN ZINC FINGER PROTEIN 140 >gi 2136409 pir C57785 zinc finger protein ZNF140 - human >gi 487787 (U09368) zinc finger protein ZNF140 [Homo sapiens] | 8.6     |
| 1962   | 1711541   | SERINE/THREONINE PROTEIN KINASE SSK2 (SUPPRESSOR OF SENSOR KINASE 2) SSK2 gene product [Saccharomyces  | 5.9     |
| 1963   | 3236252   | (AC004684) CER1-like protein [Arabidopsis thaliana]  | 3       |
| 1964   | 728836    | !!!! ALU SUBFAMILY SP WARNING ENTRY  | 0.001   |
| 1965   | 4138070   | (Y18303) reverse transcriptase [Ovine pulmonary adenocarcinoma   | 0.0002  |
| 1966   | 114128    | ADP-RIBOSYLATION FACTOR 6 1-175 [Gallus gallus]  | 9e-011  |



Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 1967   | 2293566   | (AF012896) ADP-ribosylation factor 1 [Oryza sativa]   | 2e-012  |
| 1969   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY  | 0.091   |
| 1970   | 59977     | (Z14310) tripartite fusion transcript PLA2L   | 2e-005  |
| 1971   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]   | 9       |
| 1972   | 4155181   | (AE001495) putative TYPE II RESTRICTION ENZYME  | 4.8     |
| 1973   | 2239204   | (Z97209) vacuolar carboxypeptidase  | 0.008   |
| 1974   | 3342107   | (AF075269) nef protein [Simian immunodeficiency virus]  | 6.9     |
| 1978   | 423149    | X-linked retinopathy protein (C-terminal, clone XEH.8c) - human (fragment) >gi 299471 bbs 129340 XEH.8c  [human, Peptide Partial, (U83119) ORF2 consensus sequence encoding endonuclease and reverse transcriptase minus RNaseH [Rattus norvegicus] | 0.66    |
| 1979   | 1791243   | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]   | 0.025   |
| 1980   | 126296    | !!!! ALU SUBFAMILY J WARNING ENTRY  | 0.011   |
| 1981   | 728831    | (U83119) ORF2 consensus sequence encoding endonuclease and reverse transcriptase minus RNaseH [Rattus norvegicus]   | 0.0009  |
| 1982   | 1791243   | (U52073) differentially repressed by testosterone and dihydrotestosterone [Mus musculus]  | 4e-006  |
| 1984   | 1903379   | (U52073) differentially repressed by testosterone and dihydrotestosterone [Mus musculus]  | 3.2     |
| 1985   | 1903379   | (AF081111) ORF2 [Mus musculus domesticus]   | 3.1     |
| 1986   | 3599339   | !!!! ALU SUBFAMILY SC WARNING ENTRY   | 2e-007  |
| 1990   | 728835    | CCAAT DISPLACEMENT PROTEIN (HOMEODOMAIN PROTEIN CLOX) (CLOX-1) >gi 423173 pir  S33121 homeotic protein Clox - dog (fragment) >gi 2202 emb CAA48782  | 5.9     |
| 1991   | 729093    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG (U42833) coded for by C. elegans cDNA cm16f6; coded for by C. elegans cDNA CEESU63F; similar to S. cerevisiae SOF1 protein (SP:P33750) [Caenorhabditis elegans]  | 0.018   |
| 1992   | 126295    | (AF055386) MHC class I related protein precursor  | 0.004   |
| 1993   | 1125754   | !!!! ALU SUBFAMILY SB WARNING ENTRY   | 1e-030  |
| 1994   | 3789771   | FRUCTOSE-1,6-BISPHOSPHATASE fructose-1,6-bisphosphatase [Mus musculus]  | 1.9     |
| 1995   | 728832    | ADP-RIBOSYLATION FACTOR factor [Plasmodium falciparum]  | 3.1     |
| 1996   | 3023729   | >gi 1932731 (U57370) ADP-ribosylation factor [Plasmodium  | 0.21    |
| 1997   | 3182916   | !!!! ALU CLASS C WARNING ENTRY !!!!   | 2e-015  |
| 2000   | 113668    | !!!! ALU SUBFAMILY SP WARNING ENTRY   | 1       |
| 2001   | 728836    | (Z14310) tripartite fusion transcript PLA2L   | 0.0003  |
| 2002   | 59977     | laminin receptor homolog - mouse 295) [Mus musculus]  | 7e-007  |
| 2003   | 91035     | >gi 228997 prf  1815216A laminin receptor [Cricetinae gen. sp.] regulator of mitotic spindle assembly 1   | 0.12    |
| 2005   | 4506545   | >gi 1350799 sp P49646 RMS1 HUMAN REGULATOR OF (U70935) reverse transcriptase [Peromyscus maniculatus]   | 3.7     |
| 2006   | 1619936   | !!!! ALU SUBFAMILY SQ WARNING ENTRY   | 0.015   |
| 2007   | 728837    | !!!! ALU SUBFAMILY J WARNING ENTRY  | 0.007   |
| 2008   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY  | 0.0002  |
| 2009   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY  | 5e-006  |
| 2010   | 3157938   | (AC002131) Similar to seryl-tRNA synthetase gb U10400 from S cerevisiae. EST gb N96627 comes from this gene.  | 5e-029  |
| 2011   | 2496862   | HYPOTHETICAL 6.1 KD PROTEIN C03B1.10 IN CHROMOSOME X >gi 1072242 (U40952) C03B1.10 gene product   | 0.17    |
| 2012   | 2443342   | (D88764) alpha 2 type I collagen [Rana catesbeiana]   | 1.2     |



Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 2013   | 1546035   | (U64570) myelin/oligodendrocyte glycoprotein-16.3kD(a) precursor<br>[Homo sapiens] >gi 1546037 (U64571) myelin/oligodendrocyte<br>glycoprotein-16.3kD(b) precursor | 0.15    |
| 2014   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY   | 0.006   |
| 2015   | 113668    | !!!! ALU CLASS C WARNING ENTRY !!!!  | 0.003   |
| 2016   | 728838    | !!!! ALU SUBFAMILY SX WARNING ENTRY  | 0.0003  |
| 2017   | 728837    | !!!! ALU SUBFAMILY SQ WARNING ENTRY  | 1e-005  |
| 2019   | 3002527   | (AF010144) neuronal thread protein AD7c-NTP [Homo sapiens]   | 1e-005  |
| 2021   | 728838    | !!!! ALU SUBFAMILY SX WARNING ENTRY  | 3e-005  |
| 2022   | 2879805   | (AL021813) hypothetical protein  | 0.6     |
| 2023   | 1711659   | TCP1-CHAPERONIN COFACTOR A taurus]   | 0.003   |
| 2024   | 113667    | !!!! ALU CLASS B WARNING ENTRY !!!!  | 0.0007  |
| 2025   | 113667    | !!!! ALU CLASS B WARNING ENTRY !!!!  | 0.0007  |
| 2026   | 87765     | hypothetical L1 protein (third intron of gene TS) - human<br>>gi 364964 prf 1510254A L1 repetitive element ORF [Homo   | 0.0003  |
| 2027   | 4009460   | (AF039401) calcium-dependent chloride channel-1 [Homo sapiens]   | 2e-011  |
| 2028   | 1730840   | PUTATIVE CYSTEINYL-TRNA SYNTHETASE C29E6.06C<br>(CYSTEINE--TRNA LIGASE) (CYSRS) YNL247w - yeast  | 2e-035  |
| 2030   | 4200165   | (Y16262) neutral invertase [Daucus carota]   | 5.7     |
| 2031   | 1150834   | (U42471) Wiscott-Aldrich Syndrome protein homolog [Mus   | 0.032   |
| 2032   | 113669    | !!!! ALU CLASS D WARNING ENTRY !!!!  | 0.002   |
| 2033   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY   | 0.0008  |
| 2034   | 1657758   | (U66707) densin-180 [Rattus norvegicus]  | 1e-024  |
| 2035   | 4165313   | (AB022083) SOX30 protein [Homo sapiens]  | 0.42    |
| 2036   | 1657758   | (U66707) densin-180 [Rattus norvegicus]  | 1e-024  |
| 2037   | 3193336   | (AF069301) DBI-related protein [Homo sapiens]  | 7e-055  |
| 2038   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein<br>[Nycticebus coucang]   | 8e-008  |
| 2039   | 2981631   | (AB012223) ORF2 [Canis familiaris]   | 6e-008  |
| 2040   | 4098124   | (U73522) AMSH [Homo sapiens]   | 3e-018  |
| 2042   | 113668    | !!!! ALU CLASS C WARNING ENTRY !!!!  | 9e-006  |
| 2043   | 728837    | !!!! ALU SUBFAMILY SQ WARNING ENTRY  | 5e-009  |
| 2044   | 3123312   | ZINC FINGER PROTEIN 142 (KIAA0236) Human zinc finger<br>protein(ZNF142) [Homo sapiens]   | 0.7     |
| 2045   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY   | 0.13    |
| 2046   | 1710216   | (U79260) unknown [Homo sapiens]  | 0.005   |
| 2047   | 558401    | (Z38113) incomplete orf, len: 160, CAI: 0.09 similar to MRP_ECOLI<br>P21590 39.9 KD PROTEIN  | 1e-035  |
| 2048   | 224398    | ORF [Simian virus 40]  | 1.6     |
| 2049   | 728838    | !!!! ALU SUBFAMILY SX WARNING ENTRY  | 0.001   |
| 2050   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY   | 3e-005  |
| 2051   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY   | 3e-005  |
| 2052   | 2981631   | (AB012223) ORF2 [Canis familiaris]   | 6e-007  |
| 2053   | 2981631   | (AB012223) ORF2 [Canis familiaris]   | 3e-007  |
| 2054   | 2052393   | (U86758) netrin-2 like protein [Homo sapiens] sapiens]   | 5e-012  |
| 2055   | 3023928   | PROBABLE HISTONE DEACETYLASE 1-2   | 6e-031  |
| 2056   | 2500285   | 60S RIBOSOMAL PROTEIN L5   | 0.015   |
| 2057   | 728836    | !!!! ALU SUBFAMILY SP WARNING ENTRY  | 0.0003  |
| 2058   | 113668    | !!!! ALU CLASS C WARNING ENTRY !!!!  | 0.001   |
| 2059   | 1546035   | (U64570) myelin/oligodendrocyte glycoprotein-16.3kD(a) precursor<br>[Homo sapiens] >gi 1546037 (U64571) myelin/oligodendrocyte<br>glycoprotein-16.3kD(b) precursor | 0.0006  |
| 2060   | 543944    | CBID PROTEIN >gi 154423 (L12006) putative [Salmonella  | 5.9     |
| 2064   | 728836    | !!!! ALU SUBFAMILY SP WARNING ENTRY  | 0.002   |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 2065   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY  | 6e-006  |
| 2068   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY  | 0.013   |
| 2069   | 2072977   | (U93574) putative p150 [Homo sapiens]   | 0.001   |
| 2070   | 2072972   | (U93572) putative p150 [Homo sapiens]   | 8e-005  |
| 2071   | 130402    | RETROVIRUS-RELATED POL POLYPROTEIN  | 4e-013  |
| 2072   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY  | 0.002   |
| 2073   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY  | 0.007   |
| 2074   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY  | 4e-006  |
| 2075   | 987050    | (X65335) lacZ [Cloning vector pSV-beta-Galactosidase Control]   | 0.017   |
| 2076   | 106322    | hypothetical protein (L1H 3' region) - human  | 7e-006  |
| 2078   | 804808    | (M13100) unknown protein [Rattus norvegicus]  | 0.11    |
| 2079   | 347964    | (L22453) TARBP-b gene product [Homo sapiens]  | 0.001   |
| 2080   | 1196432   | (M22333) unknown protein [Homo sapiens]   | 4e-005  |
| 2081   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY  | 8e-006  |
| 2082   | 3023928   | PROBABLE HISTONE DEACETYLASE 1-2  | 5e-037  |
| 2083   | 4505895   | pleiotropic regulator 1 (PRL1, Arabidopsis homolog) >gi 2832296 (AF044333) pleiotropic regulator 1 [Homo sapiens] | 6e-071  |
| 2086   | 728836    | !!!! ALU SUBFAMILY SP WARNING ENTRY   | 2e-005  |
| 2087   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]   | 6e-008  |
| 2088   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]   | 7e-006  |
| 2089   | 106322    | hypothetical protein (L1H 3' region) - human  | 2e-006  |
| 2090   | 2981631   | (AB012223) ORF2 [Canis familiaris]  | 1e-014  |
| 2091   | 3336903   | (Y10809) bZIP DNA-binding protein   | 2.1     |
| 2092   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY  | 0.01    |
| 2093   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]   | 0.002   |
| 2094   | 728837    | !!!! ALU SUBFAMILY SQ WARNING ENTRY   | 4e-008  |
| 2095   | 113671    | !!!! ALU CLASS F WARNING ENTRY !!!!   | 0.0001  |
| 2096   | 386786    | (J04988) 90 kD heat shock protein [Homo sapiens]  | 3e-009  |
| 2097   | 106322    | hypothetical protein (L1H 3' region) - human  | 7e-005  |
| 2099   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]   | 0.1     |
| 2100   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY  | 1e-005  |
| 2101   | 2981631   | (AB012223) ORF2 [Canis familiaris]  | 1e-006  |
| 2102   | 2500367   | 60S RIBOSOMAL PROTEIN L21 [musculus]  | 4e-007  |
| 2103   | 4106562   | (Z83819) dJ146H21.2 (similar to CYTOCHROME B-245 HEAVY CHAIN) [Homo sapiens]                                      | 2e-061  |
| 2104   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY  | 8e-006  |
| 2106   | 1869835   | (Z86099) protein kinase [human herpesvirus 2]   | 8.9     |
| 2107   | 1754989   | (U47661) proline-rich protein PRP2 precursor [Lupinus luteus]   | 6.7     |
| 2108   | 2580578   | (AF000996) ubiquitous TPR motif, Y isoform [Homo sapiens]   | 0.0004  |
| 2109   | 1173220   | 40S RIBOSOMAL PROTEIN S15A  | 0.0003  |
| 2110   | 3646139   | (AJ011081) mader-drop8 [Homo sapiens]   | 2e-006  |
| 2111   | 3192897   | (AF066071) SP85; PsB [Dictyostelium discoideum]   | 1e-008  |
| 2112   | 126295    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG  | 8e-009  |
| 2113   | 3599336   | (AF081110) ORF2 [Mus musculus domesticus]   | 5e-012  |
| 2115   | 4185943   | (Y17833) pol protein [Human endogenous retrovirus K]  | 2e-022  |
| 2118   | 53912     | (X57960) ribosomal protein L7 [Mus musculus]  | 3e-027  |
| 2120   | 2506605   | HYPOTHETICAL 65.0 KD PROTEIN IN HUPB-COF INTERGENIC REGION >gi 1580716 dbj BAA11649  hypothetical                 | 4.5     |
| 2121   | 2642222   | (AF030885) telomere-associated recQ-like helicase   | 0.001   |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 2125   | 1085573   | microtubule-associated protein MAP2 - rat molecular weight   |         |
| 2126   | 3192899   | microtubule-associated protein cell line, Peptide Partial, 381 aa]   | 1.9     |
| 2127   | 106322    | (AF066072) SP85; PsB [Dictyostelium discoideum]  | 0.024   |
| 2128   | 2981631   | hypothetical protein (L1H 3' region) - human   | 1e-005  |
| 2129   | 403460    | (AB012223) ORF2 [Canis familiaris]   | 2e-010  |
|        |           | (L24521) transformation-related protein [Homo sapiens]   | 0.003   |
| 2130   | 1082633   | Nascent polypeptide associated complex alpha chain - human   |         |
| 2132   | 1669472   | >gi 556642 emb CAA56869  (X80909) Nascent polypeptide associated complex alpha subunit [Homo sapiens] >gi 4092060  |         |
| 2133   | 1127036   | (AF054187) alpha NAC [Homo sapiens]  | 3e-006  |
| 2134   | 728835    | (U53757) pol polyprotein [Feline immunodeficiency virus]   | 6.2     |
| 2136   | 728837    | (D26178) serine/threonine protein kinase   | 0.81    |
|        |           | !!!! ALU SUBFAMILY SC WARNING ENTRY  | 2e-007  |
|        |           | !!!! ALU SUBFAMILY SQ WARNING ENTRY  | 5e-008  |
| 2137   | 730246    | OX-2 MEMBRANE GLYCOPROTEIN PRECURSOR precursor - human (fragment) >gi 1335216 emb CAA28943   | 3e-008  |
| 2138   | 3341992   | (AF054174) histone macroH2A1.2 [Homo sapiens]  | 6e-033  |
| 2139   | 1363325   | RNA helicase HEL117 - rat >gi 897915   | 9.9     |
| 2140   | 3892705   | (AL033545) putative protein [Arabidopsis thaliana]   | 0.14    |
| 2141   | 2565196   | (AF000381) non-functional folate binding protein [Homo sapiens]  | 0.007   |
| 2142   | 106322    | hypothetical protein (L1H 3' region) - human   | 5e-007  |
| 2143   | 106322    | hypothetical protein (L1H 3' region) - human   | 0.033   |
| 2144   | 133902    | 40S RIBOSOMAL PROTEIN S27 ribosomal protein S27 isoform [Homo sapiens]   | 0.0004  |
| 2145   | 111814    | hypothetical protein 3 - rat norvegicus]   | 2e-011  |
| 2146   | 1669454   | (U53748) pol polyprotein [Feline immunodeficiency virus]   | 8.6     |
| 2147   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]  | 6e-005  |
| 2148   | 4506701   | ribosomal protein S23 S23 >gi 543449 pir  S41955 ribosomal protein S23 - rat protein [Homo sapiens] >gi 453281 emb CAA54584  (X77398) ribosomal protein S23 [Rattus norvegicus]                            | 3e-009  |
| 2149   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]  | 3e-011  |
| 2152   | 1353390   | (U34998) Rad9 [Coprinus cinereus]  | 8       |
| 2153   | 2134082   | hepatocyte growth factor receptor - African clawed frog  | 4.8     |
| 2154   | 1196432   | (M22333) unknown protein [Homo sapiens]  | 3e-006  |
| 2155   | 730451    | 60S RIBOSOMAL PROTEIN L13A (23 KD HIGHLY BASIC PROTEIN) >gi 345897 pir  S29539 basic protein, 23K - human  | 2e-008  |
| 2156   | 2072964   | >gi 23691 emb CAA40254  (X56932) 23 kD highly basic protein (U93569) putative p150 [Homo sapiens]  | 3e-009  |
| 2157   | 1791243   | (U83119) ORF2 consensus sequence encoding endonuclease and reverse transcriptase minus RNaseH [Rattus norvegicus]  | 4e-012  |
| 2158   | 4506437   | retinoblastoma-binding protein 1; RBP1 >gi 1710030 sp P29374 RBB1_HUMAN RETINOBLASTOMA BINDING PROTEIN 1 (RBBP-1) >gi 2136103 pir  I58383 retinoblastoma binding protein 1 - human protein 1, RBP1 [human, | 5e-008  |
| 2160   | 2981631   | (AB012223) ORF2 [Canis familiaris]   | 0.0008  |
| 2161   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]  | 0.0005  |
| 2162   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY   | 2e-007  |
| 2163   | 114977    | MEMBRANE-ASSOCIATED PROTEIN HEM-2 H19 protein - mouse (fragment) >gi 51136 emb CAA43693  | 2e-012  |
| 2165   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]  | 6e-005  |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 2166   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein<br>[Nycticebus coucang]   | 1e-012  |
| 2172   | 106323    | hypothetical protein (L1H 5' region) - human   | 9e-010  |
| 2173   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein<br>[Nycticebus coucang]   | 2e-013  |
| 2174   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein<br>[Nycticebus coucang]   | 2e-013  |
| 2175   | 695802    | (L39061) transcription factor SL1 [Homo sapiens]   | 4e-014  |
| 2177   | 2072964   | (U93569) putative p150 [Homo sapiens]  | 5e-007  |
| 2180   | 1085573   | microtubule-associated protein MAP2 - rat molecular weight<br>microtubule-associated protein cell line, Peptide Partial, 381 aa] | 3.8     |
| 2181   | 104623    | collagen, corneal - chicken (fragment)   | 0.097   |
| 2182   | 2981631   | (AB012223) ORF2 [Canis familiaris]   | 1e-010  |
| 2183   | 2493820   | CYTOCHROME C OXIDASE POLYPEPTIDE I ornatipinnis]   | 3e-011  |
| 2184   | 2494737   | HYPOTHETICAL 71.7 KD PROTEIN F52H3.2 IN<br>CHROMOSOME II >gi 3877390 emb CAA91322  | 3e-046  |
| 2185   | 1709997   | DNA REPAIR PROTEIN RAD18 pombe]  | 0.64    |
| 2186   | 59977     | (Z14310) tripartite fusion transcript PLA2L  | 1e-006  |
| 2187   | 2072967   | (U93570) putative p150 [Homo sapiens]  | 5e-007  |
| 2188   | 1800307   | (U83883) p105 coactivator [Rattus norvegicus]  | 4e-010  |
| 2189   | 728831    | !!!! ALU SUBFAMILY J WARNING ENTRY   | 4e-009  |
| 2190   | 2245560   | (AF004339) cytochrome c oxidase subunit II [Homo sapiens]  | 9e-007  |
| 2191   | 3875269   | (Z77655) Weak similarity to Human calcium-dependent proetase<br>(SW:CANS_HUMAN)  | 0.2     |
| 2192   | 728835    | !!!! ALU SUBFAMILY SC WARNING ENTRY  | 2e-010  |
| 2193   | 106322    | hypothetical protein (L1H 3' region) - human   | 3e-013  |
| 2194   | 2072967   | (U93570) putative p150 [Homo sapiens]  | 1e-015  |
| 2196   | 189086    | (M18728) ORF1 [Homo sapiens]   | 0.0005  |
| 2197   | 2605776   | (AF027404) signal recognition particle 14a [Macaca radiata]  | 0.0003  |
| 2202   | 339777    | (M80344) ORF2 contains a reverse transcriptase domain.   | 5e-017  |
| 2203   | 4539386   | (AL035526) extensin-like protein   | 1       |
| 2204   | 3043654   | (AB011137) KIAA0565 protein [Homo sapiens]   | 3e-020  |
| 2206   | 3929396   | HYPOTHETICAL 47.8 KD PROTEIN F57B9.5 IN<br>CHROMOSOME III >gi 532824 (U13876) F57B9.5 gene product                               | 0.1     |
| 2207   | 1769472   | (U15780) p82 [Homo sapiens]  | 9e-037  |
| 2208   | 728837    | !!!! ALU SUBFAMILY SQ WARNING ENTRY  | 8e-015  |
| 2209   | 2506089   | 26S PROTEASE REGULATORY SUBUNIT 7  | 1e-016  |
| 2210   | 1073466   | aldehyde dehydrogenase (EC 1.2.1.-) aldB - Escherichia coli<br>>gi 912476 (U00039) No definition line found [Escherichia coli]   | 1.4     |
| 2211   | 2072960   | >gi 1790014 (AE000436) aldehyde dehydrogenase B (lactaldehyde<br>(U93568) p40 [Homo sapiens]                                     | 3e-005  |
| 2212   | 4009460   | (AF039401) calcium-dependent chloride channel-1 [Homo sapiens]   | 2e-020  |
| 2214   | 100687    | hydroxyproline-rich glycoprotein - rice glycoprotein [Oryza sativa]  | 8.7     |
| 2215   | 3043616   | (AB011118) KIAA0546 protein [Homo sapiens]   | 2e-010  |
| 2216   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein<br>[Nycticebus coucang]   | 6e-014  |
| 2218   | 91043     | LINE-1 hypothetical protein - mouse (fragment) musculus]   | 3e-005  |
| 2220   | 4106562   | (Z83819) dJ146H21.2 (similar to CYTOCHROME B-245 HEAVY<br>CHAIN) [Homo sapiens]  | 5e-061  |
| 2221   | 631507    | zinc-containing protein - human  | 0.0001  |
| 2223   | 2072972   | (U93572) putative p150 [Homo sapiens]  | 3e-009  |
| 2224   | 3123174   | HYPOTHETICAL PROTEIN   | 1e-012  |
| 2226   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein<br>[Nycticebus coucang]   | 1e-007  |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 2227   | 2981631   | (AB012223) ORF2 [Canis familiaris]  | 3e-013  |
| 2228   | 109930    | GTP-binding protein rah - mouse (fragment) G-protein=low-molecular-weight GTP-binding protein GTP-binding protein [Mus  | 4e-020  |
| 2229   | 2981631   | (AB012223) ORF2 [Canis familiaris]  | 5e-007  |
| 2230   | 1698455   | (U49974) mariner transposase [Homo sapiens]   | 5e-007  |
| 2231   | 2289235   | (U95016) myocyte nuclear factor-beta [Mus musculus]   | 8e-015  |
| 2232   | 2827495   | (AL009196) 1-evidence=predicted by content; 1-method=genefinder;084; 1-evidence_end; 2-evidence=predicted by match; 2-match_accession=AA391048; 2-match_description=LD09991.5prime LD Drosophila melanogaster                           | 1.9     |
| 2233   | 2465330   | (U92818) unnamed HERV-H protein [Homo sapiens]  | 1e-011  |
| 2234   | 2135837   | nuclear protein H731 - human >gi 1825562  | 4e-014  |
| 2235   | 4164448   | (AF044958) NADH:ubiquinone oxidoreductase ASH1 subunit  | 2e-025  |
| 2236   | 4506077   | protein kinase C substrate 80K-H >gi 120629 sp P14314 G19P_HUMAN PROTEIN KINASE C SUBSTRATE, 80 KD PROTEIN, HEAVY CHAIN (PKCSH) (80K-H PROTEIN) >gi 105167 pir A32469 80K protein H precursor 80K-                                      | 4e-031  |
| 2237   | 2981631   | (AB012223) ORF2 [Canis familiaris]  | 0.007   |
| 2238   | 1176422   | (U43194) raphilin [Mus musculus]  | 0.81    |
| 2239   | 4263743   | (AC004923) similar to UNC-93; similar to U89424 (PID:g3642687) [Homo sapiens]   | 3e-041  |
| 2240   | 106322    | hypothetical protein (L1H 3' region) - human  | 2e-018  |
| 2241   | 2352427   | (AF004161) peroxisomal Ca-dependent solute carrier  | 1e-044  |
| 2242   | 4104400   | (AF035401) exocellobiohydrolase precursor [Piromyces rhizinflata]   | 4.2     |
| 2243   | 158154    | (M81959) POU domain protein [Drosophila melanogaster]   | 3       |
| 2244   | 114858    | MAGNESIUM-PROTOPORPHYRIN IX MONOMETHYL ESTER OXIDATIVE CYCLASE 66 KD SUBUNIT Rhodobacter capsulatus >gi 46113 emb CAA77530  (Z11165) 575 aa (66 kD) oxidative   | 2.2     |
| 2245   | 2352427   | (AF004161) peroxisomal Ca-dependent solute carrier  | 3e-044  |
| 2246   | 116746    | PROBABLE COAT PROTEIN virus >gi 58812 emb CAA29526  (X06166) ORF IV (AA 1-489)  | 4.3     |
| 2247   | 2072967   | (U93570) putative p150 [Homo sapiens]   | 6e-008  |
| 2248   | 2137494   | M-sema F protein precursor - mouse homolog=M-Sema F [mice, neonatal brain, Peptide, 834 aa]   | 5.5     |
| 2249   | 1709971   | 60S RIBOSOMAL PROTEIN L10A (CSA-19)   | 1e-015  |
| 2250   | 1498225   | (Y07569) PHAPI2a protein [Homo sapiens]   | 4e-012  |
| 2251   | 1711550   | TRANSLOCON-ASSOCIATED PROTEIN, DELTA SUBUNIT PRECURSOR (TRAP-DELTA) (SIGNAL SEQUENCE RECEPTOR DELTA SUBUNIT) (SSR-DELTA) unnamed protein product [Homo sapiens] >gi 1302656 sapiens] >gi 1673433 emb CAA92215                           | 3e-012  |
| 2252   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]   | 1e-013  |
| 2253   | 4502643   | chaperonin containing T-complex subunit 6 >gi 730922 sp P40227 TCPZ_HUMAN T-COMPLEX PROTEIN 1, ZETA SUBUNIT (TCP-1-ZETA) (CCT-ZETA) (TCP20) sapiens]  | 1e-014  |
| 2254   | 2737894   | (U59151) Cbf5p homolog [Homo sapiens]   | 4e-070  |
| 2255   | 1076557   | extensin-like protein - cowpea (fragment)   | 0.6     |
| 2257   | 3878245   | (Z69664) Similarity to Yeast cell division control protein cdc25 (SW:CC@%_SACKL); cDNA EST EMBL:D32475 comes from this gene; cDNA EST EMBL:D34376 comes from this gene; cDNA EST EMBL:D35124 comes from this gene; cDNA EST EMBL:D37... | 9.2     |
| 2258   | 4505067   | MAD2 (mitotic arrest deficient, yeast, homolog)-like 1 >gi 950199 (U31278) mitotic feedback control protein Madp2 homolog [Homo   | 2e-009  |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 2259   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]   | 4e-018  |
| 2260   | 4507669   | tumor protein, translationally-controlled 1 CONTROLLED TUMOR PROTEIN (TCTP) (P23) factor - human >gi 37496 emb CAA34200  (X16064) tumor protein (AA 1 - 172) [Homo sapiens]   | 0.043   |
| 2261   | 66499     | arylamine N-acetyltransferase (EC 2.3.1.5), monomorphic - rabbit >gi 217728 dbj BAA00989  (D10108) arylamine N-acetyltransferase [Oryctolagus cuniculus]  | 1.8     |
| 2262   | 733532    | (U23420) unknown [Drosophila melanogaster]  | 0.51    |
| 2263   | 3041664   | DEOXYURIDINE 5'-TRIPHOSPHATE NUCLEOTIDOHYDROLASE PRECURSOR (DUTPASE) (DUTP PYROPHOSPHATASE) >gi 2443580 (AF018432) dUTPase [Homo sapiens] >gi 2735292 (U90223) deoxyuridine triphosphate  | 2e-029  |
| 2264   | 2136246   | tastin - human >gi 905356 (U04810) tastin   | 1.1     |
| 2266   | 126295    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG  | 0.0002  |
| 2267   | 825671    | (X16934) B23 nucleophosmin (280 AA) [Homo sapiens]  | 4e-013  |
| 2268   | 2231019   | (Z97207) B-IND1 protein [Mus musculus]  | 2e-023  |
| 2269   | 4502189   | aquaporin 8 sapiens]  | 1e-014  |
| 2270   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]   | 5e-015  |
| 2271   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]   | 5e-015  |
| 2272   | 218564    | (D90358) HB-SOD [Schizosaccharomyces pombe]   | 4e-024  |
| 2274   | 1352736   | PELOTA PROTEIN >gi 973224 (U27197) pelota [Drosophila   | 3e-038  |
| 2275   | 102177    | hypothetical protein (ribosomal RNA repeat region) - Giardia lamblia  | 1.3     |
| 2276   | 113668    | !!!! ALU CLASS C WARNING ENTRY !!!!   | 0.13    |
| 2277   | 961444    | (D63876) KIAA0154 gene product is related to mouse gamma adaptin. [Homo sapiens]  | 7e-026  |
| 2278   | 3183217   | HYPOTHETICAL PROTEIN KIAA0103 sapiens]  | 5e-017  |
| 2282   | 2072972   | (U93572) putative p150 [Homo sapiens]   | 4e-017  |
| 2283   | 961444    | (D63876) KIAA0154 gene product is related to mouse gamma adaptin. [Homo sapiens]  | 6e-028  |
| 2285   | 4586287   | (AB004794) DUF140 [Xenopus laevis]  | 0.005   |
| 2286   | 3879684   | (Z74042) predicted using Genefinder; Similarity to Haemophilus 3-oxoacyl-(acyl-carrier protein) reductase (SW:FABG_HAEIN); cDNA EST yk470b2.3 comes from this gene; cDNA EST yk470b2.5 comes from this gene [Caenorhabditis elegans]                          | 0.0002  |
| 2287   | 131786    | RAS-RELATED PROTEIN RAB-1A protein ypt1 - mouse >gi 2144599 pir TVHUYP GTP-binding protein Rab1 - human >gi 2144600 pir TVDGYP GTP-binding protein Rab1 - dog >gi 55457 emb CAA68284  (Y00094) Ypt1 protein (AA 1-205) [Mus musculus] >gi 550060 (M28209) GTP | 1e-017  |
| 2288   | 4115532   | (AB012043) NBR13 [Homo sapiens]   | 0.69    |
| 2289   | 4586287   | (AB004794) DUF140 [Xenopus laevis]  | 1e-007  |
| 2290   | 126296    | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]   | 9e-020  |
| 2293   | 2981950   | Pathogenesis-Related Protein 5d From Nicotiana Tabacum  | 7.8     |
| 2294   | 482300    | cell surface antigen CD34 precursor - human   | 1e-019  |
| 2295   | 104623    | collagen, corneal - chicken (fragment)  | 0.14    |
| 2296   | 4191746   | (L30113) alcohol dehydrogenase; ADH [Papio hamadryas]   | 2e-018  |
| 2297   | 1518609   | (U57715) FGF receptor activating protein FRAG1 [Rattus  | 1e-020  |
| 2298   | 4502953   | collagen, type IV, alpha 4 CHAIN PRECURSOR >gi 1360674 pir CGHU1B collagen alpha 4(IV) chain precursor - human >gi 574806 emb CAA56943  IV [Homo sapiens]   | 0.025   |



Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 2299   | 2565196   | (AF000381) non-functional folate binding protein [Homo sapiens]   | 1e-006  |
| 2300   | 2492620   | NEURONAL ACETYLCHOLINE RECEPTOR PROTEIN, ALPHA-6 CHAIN PRECURSOR >gi 1458118 (U62435) nicotinic acetylcholine receptor alpha6 subunit precursor [Homo sapiens]<br>>gi 2815225 emb CAA76155  precursor [Homo sapiens]          | 1e-009  |
| 2301   | 95095     | hypothetical protein 2 - Agrobacterium tumefaciens<br>>gi 39102 emb CAA37890.1  (X53945) ORF2   | 3.3     |
| 2302   | 1765938   | (U47077) DNA-dependent protein kinase catalytic subunit   | 6e-021  |
| 2303   | 2493783   | COLLAGEN ALPHA 4(IV) CHAIN bovine (fragment)  | 3       |
| 2304   | 2645205   | (U63648) p160 myb-binding protein [Mus musculus]  | 3e-029  |
| 2305   | 2645205   | (U63648) p160 myb-binding protein [Mus musculus]  | 9e-030  |
| 2306   | 2495322   | HOMEODOMAIN PROTEIN HOX-A9  | 8e-014  |
| 2307   | 116509    | CALCYCLIN (PROLACTIN RECEPTOR ASSOCIATED PROTEIN) (PRA) (GROWTH FACTOR-INDUCIBLE PROTEIN 2A9) (S100 CALCIUM-BINDING PROTEIN A6) put. calcyclin;   | 4e-006  |
| 2308   | 4502991   | cytochrome c oxidase subunit VIIb<br>>gi 461804 sp P24311 COXM_HUMAN CYTOCHROME C OXIDASE POLYPEPTIDE VIIb PRECURSOR 1.9.3.1) chain VIIb - human >gi 30151 emb CAA78613  sapiens]   | 0.002   |
| 2309   | 4507669   | tumor protein, translationally-controlled 1 CONTROLLED TUMOR PROTEIN (TCTP) (P23) factor - human >gi 37496 emb CAA34200  (X16064) tumor protein (AA 1 - 172) [Homo sapiens]   | 6e-020  |
| 2311   | 4507207   | sorcin sorcin [Homo sapiens] >gi 1094394 prf 2106141A sorcin  | 2e-018  |
| 2312   | 117061    | CYTOCHROME C OXIDASE POLYPEPTIDE III chain III - human mitochondrion (SGC1) oxidase III [Homo sapiens]  | 3e-017  |
| 2313   | 1709972   | 60S RIBOSOMAL PROTEIN L10A (CSA-19)   | 5e-013  |
| 2314   | 4454698   | (AF070661) HSPC005 [Homo sapiens]   | 3e-014  |
| 2315   | 1885381   | (U77665) RNaseP protein P30 [Homo sapiens]  | 1e-020  |
| 2316   | 209383    | (M27786) MS-2 pol-stefin B fusion protein [Artificial gene]   | 7e-008  |
| 2318   | 631507    | zinc-containing protein - human   | 0.03    |
| 2319   | 4502991   | cytochrome c oxidase subunit VIIb<br>>gi 461804 sp P24311 COXM_HUMAN CYTOCHROME C OXIDASE POLYPEPTIDE VIIb PRECURSOR 1.9.3.1) chain VIIb - human >gi 30151 emb CAA78613  sapiens]   | 5e-013  |
| 2320   | 87765     | hypothetical L1 protein (third intron of gene TS) - human<br>>gi 364964 prf 1510254A L1 repetitive element ORF [Homo  | 2e-015  |
| 2321   | 129379    | MITOCHONDRIAL MATRIX PROTEIN P1 PRECURSOR (P60 LYMPHOCYTE PROTEIN) (60 KD CHAPERONIN) PROTEIN) (HUCHA60) >gi 107086 pir A32800 heat shock protein 60 precursor - human >gi 190127 (M22382) mitochondrial matrix protein [Homo | 8e-016  |
| 2322   | 2231019   | (Z97207) B-IND1 protein [Mus musculus]  | 6e-022  |
| 2323   | 4154176   | (U96639) ATPase subunit 6 [Canis familiaris]  | 0.007   |
| 2324   | 2575807   | (D49692) adenylate cyclase [Spirulina platensis]  | 4.4     |
| 2325   | 4502991   | cytochrome c oxidase subunit VIIb<br>>gi 461804 sp P24311 COXM_HUMAN CYTOCHROME C OXIDASE POLYPEPTIDE VIIb PRECURSOR 1.9.3.1) chain VIIb - human >gi 30151 emb CAA78613  sapiens]   | 5e-007  |
| 2326   | 2119918   | P43 - human >gi 833999 bbs 160014 (S75463) P43=mitochondrial elongation factor homolog [human, liver, Peptide, 452 aa] [Homo  | 3e-020  |
| 2327   | 4503145   | cathepsin E precursor - human >gi 181194 (J05036) cathepsin E precursor [Homo sapiens] >gi 181205 (M84424) cathepsin E  | 1e-041  |
| 2328   | 4502189   | aquaporin 8 sapiens]  | 2e-023  |
| 2329   | 4502189   | aquaporin 8 sapiens]  | 2e-026  |
| 2330   | 2306969   | (AF007860) x1-Mago [Xenopus laevis]   | 2e-037  |



Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1  | P VALUE |
|--------|-----------|---|---------|
| 2333   | 3970731   | (AJ006480) SBT4B protein [ <i>Lycopersicon esculentum</i> ]   | 9       |
| 2334   | 2736524   | (AF039052) Similar to inosine monophosphate dehydrogenase; coded for by <i>C. elegans</i> cDNA CEMSF04F; coded for by <i>C. elegans</i> cDNA yk247b12.3; coded for by <i>C. elegans</i> cDNA cm20d8; coded for by <i>C. elegans</i> cDNA yk247b12.5; coded for by <i>C. elegans</i> ... | 2.7     |
| 2335   | 1085957   | hypothetical protein Y - <i>Streptomyces nogalater</i>  | 1.1     |
| 2336   | 3183217   | >gi 2147591 pir  S69232 hypothetical protein Y  | 3e-021  |
| 2337   | 2494312   | HYPOTHETICAL PROTEIN KIAA0103 sapiens]  | 3e-037  |
| 2338   | 337930    | TRANSLATION INITIATION FACTOR EIF-2B GAMMA SUBUNIT (EIF-2B GDP-GTP EXCHANGE FACTOR) subunit   | 1e-024  |
| 2339   | 68891     | (M22146) scar protein [ <i>Homo sapiens</i> ]   | 2e-007  |
| 2340   | 126296    | transforming protein ets - chicken >gi 211753   | 9e-017  |
| 2341   | 4507517   | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [ <i>Nycticebus coucang</i> ]  | 9e-023  |
| 2343   | 106851    | tight junction protein 1 (zona occludens 1) >gi 585098 sp Q07157 ZO1_HUMAN TIGHT JUNCTION PROTEIN ZO-1 (TIGHT JUNCTION PROTEIN 1) human   | 4e-023  |
| 2344   | 1723438   | >gi 292938 (L14837) tight junction (zonula occludens) protein ZO-1  | 7.5     |
| 2345   | 2231019   | keratin 18, cytoskeletal - human (fragment) sapiens]  | 7e-022  |
| 2346   | 2047300   | HYPOTHETICAL 52.3 KD PROTEIN C56F8.06C IN CHROMOSOME I PRECURSOR  | 0.48    |
| 2347   | 129383    | (Z97207) B-IND1 protein [ <i>Mus musculus</i> ]   | 2e-023  |
| 2351   | 4502411   | (L40459) latent transforming growth factor-beta binding protein [ <i>Mus musculus</i> ]   | 3e-025  |
| 2352   | 2072961   | PROBABLE RNA-DEPENDENT HELICASE P68 human   | 2e-014  |
| 2354   | 2306969   | >gi 35220 emb CAA36324  (X52104) p68 protein (AA 1-614) [ <i>Homo sapiens</i> ] >gi 38318 emb CAA33751  (X15729) protein p68 (AA 1-614) [ <i>Homo sapiens</i> ] >gi 2599360   | 3e-041  |
| 2355   | 1872498   | BCL2-interacting killer BCL-2 INTERACTING KILLER (APOPTOSIS INDUCER NBK) (BP4) sapiens] >gi 1235989   | 2e-033  |
| 2356   | 1783123   | (U93568) putative p150 [ <i>Homo sapiens</i> ]  | 1e-029  |
| 2357   | 2306969   | (AF007860) xl-Mago [ <i>Xenopus laevis</i> ]  | 2e-041  |
| 2358   | 1872498   | (U74297) PiUS [ <i>Oryctolagus cuniculus</i> ]  | 6e-034  |
| 2359   | 4519602   | (AB000170) endopeptidase 24.16 type M3 endopeptidase 24.16 type M3 [ <i>Sus scrofa</i> ] type M3 [ <i>Sus scrofa</i> ] >gi 1783130 dbj BAA19065  type M3 [ <i>Sus scrofa</i> ] >gi 1783134 dbj BAA19067  type M3 [ <i>Sus</i>   | 3e-041  |
| 2360   | 1944330   | (AF007860) xl-Mago [ <i>Xenopus laevis</i> ]  | 2e-019  |
| 2361   | 4502189   | (U74297) PiUS [ <i>Oryctolagus cuniculus</i> ]  | 6e-040  |
| 2362   | 4502189   | (AB017563) IGSF4 [ <i>Homo sapiens</i> ]  | 2e-041  |
| 2363   | 1537070   | (D49545) KIFC2 [ <i>Mus musculus</i> ]  | 2e-040  |
| 2364   | 3024124   | aquaporin 8 sapiens]  | 8e-030  |
| 2365   | 107215    | aquaporin 8 sapiens]  | 5e-040  |
| 2366   | 2306969   | (U63840) nucleoporin p54 [ <i>Rattus norvegicus</i> ]   | 7e-054  |
| 2367   | 2306969   | HOMEBOX PROTEIN MEIS3   | 2e-054  |
| 2368   | 4464284   | notch protein homolog TAN-1 precursor - human   | 7e-045  |
| 2369   | 4502741   | (AF007860) xl-Mago [ <i>Xenopus laevis</i> ]  | 1e-060  |
|        |           | (AF007860) xl-Mago [ <i>Xenopus laevis</i> ]  |         |
|        |           | (AC007136) Putative map kinase interacting kinase [ <i>Homo sapiens</i> ] [ <i>Homo sapiens</i> ]   |         |
|        |           | cyclin-dependent kinase 6 KINASE 6 (KINASE PLSTIRE) >gi 107662 pir  S23387 protein kinase (EC 2.7.1.37) cdk6 - human >gi 4389286 pdb 1BI8 A Chain A, Mechanism Of G1 Cyclin Dependent Kinase Inhibition From The Structures Cdk6-P19ink4d   |         |

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| SEQ ID | ACCESSION | DESCRIPTION1   | P VALUE |
|--------|-----------|--|---------|
| 2371   | 2496815   | HYPOTHETICAL 68.1 KD PROTEIN B0304.7 IN CHROMOSOME II >gi 1041881 (U39472) similar to f44f4.5  | 0.59    |
| 2372   | 2496815   | HYPOTHETICAL 68.1 KD PROTEIN B0304.7 IN CHROMOSOME II >gi 1041881 (U39472) similar to f44f4.5  | 0.56    |
| 2373   | 3327226   | (AB014606) KIAA0706 protein [Homo sapiens]   | 1e-031  |
| 2374   | 3327226   | (AB014606) KIAA0706 protein [Homo sapiens]   | 2e-034  |
| 2375   | 3327226   | (AB014606) KIAA0706 protein [Homo sapiens]   | 2e-038  |
| 2376   | 2231019   | (Z97207) B-IND1 protein [Mus musculus]   | 2e-039  |
| 2377   | 3327226   | (AB014606) KIAA0706 protein [Homo sapiens]   | 4e-043  |
| 2378   | 417743    | NEUROLYSIN PRECURSOR (NEUROTENSIN ENDOPEPTIDASE) (MITOCHONDRIAL OLIGOPEPTIDASE M) ANGIOTENSIN-BINDING PROTEIN) (SABP) protein - pig >gi 217709 dbj BAA01949  (D11336) soluble angiotensin-binding protein [Sus scrofa] type M1 [Sus scrofa] >gi 1871389 dbj BAA1 (AB000172) endopeptidase 24.16 type M2 endopeptidase 24.16 type M2 [Sus scrofa] | 1e-047  |
| 2379   | 1783127   | TRANSLATION INITIATION FACTOR EIF-2B GAMMA SUBUNIT (EIF-2B GDP-GTP EXCHANGE FACTOR) subunit  | 7e-050  |
| 2380   | 2494312   | CDC4 repeat unit-containing protein - mouse  | 7e-056  |
| 2381   | 1085499   | (AB019987) chromosome-associated polypeptide-C [Homo sapiens]  | 4e-056  |
| 2382   | 4092846   | (AF023265) NAD <sup>+</sup> -specific isocitrate dehydrogenase beta subunit isoform A [Homo sapiens]   | 4e-058  |
| 2383   | 4103446   | (U42385) FIN16 gene product [Mus musculus]   | 5e-059  |
| 2384   | 1353709   | (AF083395) phospholipase A2-activating protein [Homo sapiens]  | 8e-061  |
| 2385   | 4106818   | (U08215) NST-1 [Mus musculus]  | 5e-061  |
| 2386   | 473407    | (AF023265) NAD <sup>+</sup> -specific isocitrate dehydrogenase beta subunit isoform A [Homo sapiens]   | 2e-061  |
| 2387   | 4103446   | (U63840) nucleoporin p54 [Rattus norvegicus]   | 6e-062  |
| 2388   | 1537070   | (AF092563) chromosome-associated protein-E [Homo sapiens]  | 2e-062  |
| 2389   | 3851584   | (AF092563) chromosome-associated protein-E [Homo sapiens]  | 7e-063  |
| 2390   | 3851584   | (AF092563) chromosome-associated protein-E [Homo sapiens]  | 6e-063  |
| 2391   | 3493209   | (AF052577) aldo-keto reductase [Homo sapiens]  | 3e-064  |
| 2392   | 4502741   | cyclin-dependent kinase 6 KINASE 6 (KINASE PLSTIRE) >gi 107662 pir S23387 protein kinase (EC 2.7.1.37) cdk6 - human >gi 4389286 pdb 1BI8 A Chain A, Mechanism Of G1 Cyclin Dependent Kinase Inhibition From The Structures Cdk6-P19ink4d   | 5e-065  |
| 2393   | 3493209   | (AF052577) aldo-keto reductase [Homo sapiens]  | 7e-066  |
| 2394   | 4165018   | (D89053) Acyl-CoA synthetase 3 [Homo sapiens]  | 3e-068  |
| 2395   | 4106818   | (AF083395) phospholipase A2-activating protein [Homo sapiens]  | 1e-068  |
| 2396   | 4165018   | (D89053) Acyl-CoA synthetase 3 [Homo sapiens]  | 1e-070  |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 101    | U73106      | Liriodendron tulipifera high-pI laccase (LAC2-4) mRNA,   | 4.9     |
| 102    | M63897      | Bacillus thuringiensis insecticidal crystal protein (CryIF) gene, complete cds.  | 4.8     |
| 103    | X75014      | M.musculus Phox2 mRNA for homeodomain protein  | 4.4     |
| 104    | X77320      | A.officinalis L. unknown mRNA  | 4.1     |
| 105    | M64982      | Human fibrinogen alpha chain gene, complete mRNAs.   | 4.1     |
| 106    | U28241      | Gallus gallus collapsin-3 mRNA, partial cds.   | 4.1     |
| 107    | M36860      | Human elastin mRNA, complete cds.  | 4.1     |
| 108    | X99641      | M.musculus mRNA for HP1 alpha protein  | 4.1     |
| 109    | X92557      | S.erythraea pccB, bcpA2, and orfX genes  | 4       |
| 110    | M21514      | Rinderpest virus fusion protein mRNA, complete cds.  | 4       |
| 111    | M64982      | Human fibrinogen alpha chain gene, complete mRNAs.   | 4       |
| 112    | D87218      | Trypanosoma cruzi mRNA, partial cds, clone:TcEST002  | 4       |
| 113    | M27273      | E.coli rafA, rafB, and rafD genes encoding alpha-D-galactosidase, raf-permease, and raf-invertase, complete cds.                                       | 3.9     |
| 114    | U50065      | Caenorhabditis elegans cosmid T23A7.   | 3.9     |
| 115    | X76186      | Rinderpest virus (RBOK vaccine) mRNA for matrix protein  | 3.9     |
| 116    | L05165      | Gorilla gorilla glycophorin-gene related sequence.   | 3.9     |
| 117    | M77212      | Apis koschevnikovi mitochondrial cytochrome oxidase II gene, complete cds.   | 3.9     |
| 118    | U64453      | Human ELK1 pseudogene (ELK2) and immunoglobulin heavy chain gamma pseudogene (IGHGP)   | 3.9     |
| 119    | M87502      | Rotavirus SA114F nonstructural protein 34 (NS34) mRNA, complete cds.   | 3.9     |
| 120    | L24376      | Bacillus subtilis ribosomal protein L7/12 (rpIL) gene, beta subunit of RNA polymerase (rpoBC) gene, 3' end, complete                                   | 3.9     |
| 121    | U97143      | Rattus norvegicus RET ligand 2 (RETL2) mRNA, complete  | 3.9     |
| 122    | M95610      | Human alpha 2 type IX collagen (COL9A2) mRNA, partial  | 3.9     |
| 123    | M21890      | Human alpha-1-antitrypsin like (PIL) pseudogene, exon 2.   | 3.9     |
| 124    | NM_002205.1 | Homo sapiens integrin, alpha 5 (fibronectin receptor, alpha polypeptide) (ITGA5) mRNA > :: emb X06256.1 HSFNRA Human mRNA for integrin alpha 5 subunit | 3.9     |
| 125    | U38949      | Gallus gallus cardiac C-protein mRNA, complete cds.  | 3.9     |
| 126    | U04985      | Simian immunodeficiency virus clone SIVsm62J vpx gene, partial cds, env, nef, tat and rev genes, complete cds.   | 3.9     |
| 127    | U05237      | Human fetal Alz-50-reactive clone 1 (FAC1) mRNA,   | 3.9     |
| 128    | X96616      | P.primaurelia gene encoding 156D surface antigen   | 3.8     |
| 129    | U31929      | Human orphan nuclear receptor (DAX1) gene, complete cds  | 3.8     |
| 130    | X13523      | Yeast CBS2 gene for cytochrome b translational activator   | 3.8     |
| 131    | M57769      | Chinese vaccinia virus I segment DNA fragment.   | 3.8     |
| 132    | U08443      | HIV-1 isolate 652 clone 11 from Haiti, envelope glycoprotein (env) gene, partial cds.  | 3.8     |
| 133    | L39876      | Caldicellulosiruptor saccharolyticus alpha-dextrin 6-glucanohydrolase (pulA) and pepX genes, complete cds and  | 3.8     |
| 134    | M20363      | Soybean heat-shock protein (Gmhs26-A) gene, complete   | 3.8     |
| 135    | J02836      | Mouse beta-glucuronidase gene, complete cds..  | 3.8     |
| 136    | U64880      | Eubacterium thermomarinus ribonuclease P RNA   | 3.8     |
| 137    | X93520      | E.caballus microsatellite DNA marker (clone ASB6)  | 3.8     |
| 138    | Z83151      | H.sapiens Fanconi anaemia group A gene, exon 6   | 3.8     |
| 139    | D28484      | Aspergillus oryzae pgkA gene for phosphoglycerate kinase, complete cds > :: dbj E04898 E04898 gDNA encoding  | 3.8     |
| 140    | Z28091      | S.cerevisiae chromosome XI reading frame ORF YKL091c   | 3.8     |
| 141    | V01291      | Yeast gene for alcohol dehydrogenase   | 3.8     |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 142    | U44843      | Lactococcus lactis plasmid pND324, complete sequence   | 3.8     |
| 143    | M13496      | Chicken type X collagen gene.  | 3.8     |
| 144    | Y14946      | Homo sapiens mRNA for SPIN protein   | 3.8     |
| 145    | U94776      | Human muscle glycogen phosphorylase (PYGM) gene, exons 6 through 17  | 3.8     |
| 146    | U43844      | Mus musculus cyclin D3 gene, complete cds  | 3.8     |
| 147    | X03431      | Drosophila melanogaster transposable element 297   | 3.8     |
| 148    | U05237      | Human fetal Alz-50-reactive clone 1 (FAC1) mRNA,   | 3.8     |
| 149    | U92856      | Comptonia peregrina maturase (matK) gene, chloroplast gene encoding chloroplast protein, complete cds                            | 3.8     |
| 150    | X94165      | Human papillomavirus type 73 E6, E7, E1, E2, E4, L2, and   | 3.7     |
| 151    | U47875      | Drosophila azteca NDSSC 14012-0171.6 glycerolphosphate dehydrogenase (Gpd) gene, partial cds                                     | 3.7     |
| 152    | X02882      | Human HLA class II alpha chain gene DZ-alpha   | 3.7     |
| 153    | AF005932    | Clavispota opuntiae Spt3 (SPT3) gene, complete cds   | 3.7     |
| 154    | Z11840      | D.melanogaster hedgehog gene DNA   | 3.7     |
| 155    | U06745      | Arabidopsis thaliana ecotype Landsberg K+ transport system AKT1 gene, complete cds.  | 3.7     |
| 156    | U63362      | Unidentified crenarchaeote 16S ribosomal RNA gene, 5' partial sequence   | 3.7     |
| 157    | D30810      | Wheat gene for transcription factor HBP-1b(c38), final exon, partial cds   | 3.7     |
| 158    | X56089      | X. laevis mRNA for alpha-subunit of G-protein, type G-   | 3.7     |
| 159    | X07701      | Chironomus tentans Balbiani ring mRNA BR 2.1 3'-end  | 3.7     |
| 160    | X64649      | G.gallus mRNA for restrictin   | 3.7     |
| 161    | Y13426      | Homo sapiens TCRDV2 gene, partial  | 3.7     |
| 162    | Y14443      | Homo sapiens mRNA for zinc finger protein  | 3.7     |
| 163    | U92794      | Mus musculus alpha glucosidase II beta subunit mRNA,   | 3.7     |
| 164    | Y09480      | A.europaeus genes encoding dehydrogenase and cytochrome  | 3.7     |
| 165    | NM_001659.1 | Homo sapiens ADP-ribosylation factor 3 (ARF3) mRNA > :: gb M74491 HUMADPRF3A Human ADP-ribosylation factor 3 mRNA, complete cds. | 3.7     |
| 166    | L20893      | Rice yellow mottle virus complete genome.  | 3.7     |
| 167    | AF019759    | Canis familiaris beta-glucuronidase (GUSB) mRNA,   | 3.7     |
| 168    | U62587      | Cricetulus griseus beta-1,6-N-acetylglucosaminyltransferase Lec4A cell line point mutant mRNA, complete cds                      | 3.7     |
| 169    | D50085      | Cucumis sativus mRNA for NADPH-protochlorophyllide oxidoreductase, complete cds  | 3.7     |
| 170    | M81890      | Human interleukin 11 (IL11) gene, complete mRNA.   | 3.7     |
| 171    | M57765      | Human interleukin 11 mRNA, complete cds.   | 3.7     |
| 172    | X55880      | T. reesei ura3 (OMPdecase) gene for orotidine-5'-phosphate decarboxylase (EC 4.1.1.23)   | 3.6     |
| 173    | J03028      | P.falciparum dihydrofolate reductase-thymidylate synthase gene, complete cds.  | 3.6     |
| 174    | AF000949    | Canis familiaris keratin (KRT9) gene, complete cds   | 3.6     |
| 175    | U78718      | Dugesia tigrina 26S ribosomal RNA gene, partial sequence   | 3.6     |
| 176    | D16471      | Human mRNA, Xq terminal portion  | 3.6     |
| 177    | X69838      | H.sapiens mRNA for G9a   | 3.6     |
| 178    | M24685      | Human angiotensinogen (AGT) gene, exon 1.  | 3.6     |
| 179    | L05468      | Trichomonas vaginalis beta-tubulin (btub1) gene, complete  | 3.6     |
| 180    | Y08926      | P.falciparum mRNA for AARP1 protein, partial   | 3.6     |
| 181    | M59743      | Rabbit cardiac muscle Ca-2+ release channel  | 3.6     |
| 182    | X51952      | Human UCP gene for uncoupling protein exons 1 and 2  | 3.6     |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION | DESCRIPTION   | P VALUE |
|--------|-----------|---|---------|
| 183    | U25180    | Candida albicans phosphoglycerate kinase (PGK1) gene, complete cds.   | 3.6     |
| 184    | X58080    | Maize chloroplast ORF170 and psaA gene  | 3.6     |
| 185    | Z24609    | H. sapiens (D1S502) DNA segment containing (CA) repeat; clone AFM361td9; single read  | 3.6     |
| 186    | M24936    | Mus musculus (BALB/c) L1 repeat insertion in the kappa chain 5' flank.  | 3.6     |
| 187    | U50951    | Thermoanaerobacterium thermosulfurigenes orfA gene, partial cds, polygalacturonase precursor (pglA), abcA, abcB and sigma factor (sigA) genes, complete cds | 3.6     |
| 188    | U57999    | Mus musculus prosaposin (psap/SGP-1) gene, complete cds.  | 3.6     |
| 189    | AF000949  | Canis familiaris keratin (KRT9) gene, complete cds  | 3.6     |
| 190    | S54325    | nucleoprotein [tomato chlorotic spot virus, isolate BR-03, Genomic RNA, 929 nt]   | 3.6     |
| 191    | S70572    | {endogenous retrovirus SY-3, provirus} [human, lymphocytes, Genomic, 2189 nt]   | 3.6     |
| 192    | AE000092  | Rhizobium sp. NGR234 plasmid pNGR234a, section 29 of 46 of the complete plasmid sequence  | 3.6     |
| 193    | U75285    | Homo sapiens apoptosis inhibitor survivin gene, complete  | 3.6     |
| 194    | X91404    | W.mirabilis mRNA for phosphoenolpyruvate carboxylase  | 3.6     |
| 195    | M17376    | Mouse alpha-1-acid glycoprotein I (AGP-1) gene, complete  | 3.6     |
| 196    | Z73360    | Human DNA sequence from cosmid 92M18, BRCA2 gene region chromosome 13q12-13   | 3.6     |
| 197    | L05364    | Arabidopsis thaliana polyubiquitin (ubq7) gene sequence.  | 3.6     |
| 198    | J04353    | Human papillomavirus type 31 (HPV-31) complete genome.  | 3.6     |
| 199    | X03882    | Paramecium primaurelia gene for G surface protein   | 3.6     |
| 200    | U53152    | Caenorhabditis elegans cosmid K11D5.  | 3.6     |
| 201    | M65126    | Human snRNP E protein pseudogene EB.  | 3.6     |
| 202    | J04186    | Yeast (S.cerevisiae) lysyl-tRNA synthetase (KRS1) alpha-2 subunit gene, complete cds.   | 3.6     |
| 203    | L35281    | Mus musculus (clone MKT6) morphogenetic protein 1 (BMP-1/His), alternative splice   | 3.6     |
| 204    | D83390    | Gallus gallus mRNA for connectin/titin, partial cds   | 3.6     |
| 205    | U22103    | Glycine max partial SIRE-1 sequence gag-protease polypeptide mRNA, complete cds   | 3.6     |
| 206    | U82705    | Human interferon alpha2 upstream scaffold associated region 3 (SAR3) and non-SAR region DNA   | 3.6     |
| 207    | U39389    | Rhagoletis cerasi 16S ribosomal RNA gene, mitochondrial gene encoding mitochondrial RNA, partial sequence   | 3.5     |
| 208    | X13287    | Medicago sativa nodulin-25 gene   | 3.5     |
| 209    | X91337    | H.sapiens La/SS-B pseudogene 2  | 3.5     |
| 210    | M19684    | Human alpha-1-antitrypsin-related protein gene, exons 3, 4  | 3.5     |
| 211    | M35296    | Human tyrosine kinase arg gene mRNA.  | 3.5     |
| 212    | X88000    | S.tenacellus mRNA for ubiquinol:cytochrome c  | 3.5     |
| 213    | M61906    | Human P13-kinase associated p85 mRNA sequence.  | 3.5     |
| 214    | Z29084    | C.butyricum transposon containing tbcC gene   | 3.5     |
| 215    | M92039    | Gallus gallus violet sensitive cone opsin mRNA, complete  | 3.5     |
| 216    | D86478    | Schizosaccharomyces pombe DNA for Crb2, complete cds  | 3.5     |
| 217    | U35737    | Saccharomyces cerevisiae nuclear polyadenylated RNA-binding protein (NAB4) gene, complete cds.  | 3.5     |
| 218    | M22860    | B.thuringiensis 20 and 67 kd mosquitocidal protein genes, complete cds and IS231-like transposase, 3' end.  | 3.5     |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION   | P VALUE |
|--------|-------------|---|---------|
| 219    | Z57857      | H.sapiens CpG island DNA genomic MseI fragment, clone 1d10, forward read cpg1d10 fla  | 3.5     |
| 220    | U07059      | Pneumocystis carinii clone PC14103 major surface glycoprotein mRNA, complete cds.   | 3.5     |
| 221    | X52978      | H.sapiens gene for lipoprotein lipase   | 3.5     |
| 222    | M24566      | Dictyostelium discoideum tRNA-Glu-GAA gene, clone   | 3.5     |
| 223    | U11058      | Homo sapiens calcium dependent potassium channel alpha subunit (MaxiK) mRNA, complete cds   | 3.5     |
| 224    | M21514      | Rinderpest virus fusion protein mRNA, complete cds.   | 3.5     |
| 225    | X80454      | HIV type 1 (CA7) env-gene   | 3.5     |
| 226    | X98695      | Bacteriophage T4 modA and modB genes  | 3.5     |
| 227    | X76186      | Rinderpest virus (RBOK vaccine) mRNA for matrix protein   | 3.5     |
| 228    | S82456      | PGHS-2=prostaglandin endoperoxide H synthase-2  | 3.5     |
| 229    | D85194      | Arabidopsis thaliana mRNA, partial cds  | 3.5     |
| 230    | L35661      | Homo sapiens (subclone H8 4 b9 from P1 35 H5 C8) DNA  | 3.5     |
| 231    | L76205      | Colletotrichum gloeosporioides non-LTR retrotransposon  | 3.5     |
| 232    | NM_000464.1 | Homo sapiens xeroderma pigmentosum, complementation group F (XPF) mRNA > :: gb U64315 HSU64315 Human DNA repair endonuclease subunit              | 3.5     |
| 233    | X02155      | Bovine mRNA fragment for thyroglobulin N-terminal region  | 3.5     |
| 234    | D16437      | Synechococcus sp. DNA for PacS, complete cds  | 3.5     |
| 235    | X97570      | Z.mays dek34 gene   | 3.5     |
| 236    | S65225      | PEP-19=neuron-specific [mice, Genomic, 1358 nt, segment   | 3.5     |
| 237    | U33099      | Human immunodeficiency virus type 1 isolate GM4, envelope glycoprotein (env) gene, V1-V5 region, partial cds                                      | 3.5     |
| 238    | X71604      | H.sapiens son-pseudogene  | 3.5     |
| 239    | L47357      | Homo sapiens TIMP1 gene, exon 1.  | 3.5     |
| 240    | AF015490    | Bos taurus immunoglobulin variable region mRNA, partial cds > :: gb AF015492 AF015492 Bos taurus immunoglobulin variable region mRNA, partial cds | 3.4     |
| 241    | U93308      | Arabidopsis thaliana decoy (DECOY) gene, complete cds and valyl tRNA synthetase (valRS) gene, partial cds   | 3.4     |
| 242    | Y12576      | Arabidopsis thaliana mRNA for histone H2B   | 3.4     |
| 243    | X07977      | Aspergillus amstelodami mtDNA with ARS element  | 3.4     |
| 244    | X70276      | Yeast centromere-containing shuttle vector YCp50  | 3.4     |
| 245    | J03268      | Yeast (S.cerevisiae) polymerase I gene, complete cds.   | 3.4     |
| 246    | AF013168    | Homo sapiens hamartin (TSC1) mRNA, complete cds   | 3.4     |
| 247    | M32476      | Rat carcinoembryonic antigen-related protein  | 3.4     |
| 248    | X83390      | Albinaria coerulea complete mitochondria DNA  | 3.4     |
| 249    | U63337      | Mus musculus cyclin-dependent kinase-2 alpha  | 3.4     |
| 250    | D85530      | Human CpG island sequence, clone G0310  | 3.4     |
| 251    | M92423      | Human FK506-binding protein 12 (FKBP12) mRNA, exons 3 and 4, complete FKBP12A mRNA and complete cds.  | 3.4     |
| 252    | AB002693    | Mouse mRNA for ISBT, complete cds   | 3.4     |
| 253    | L01057      | Human (clone TRI-6) satellite I repeat region.  | 3.4     |
| 254    | U11270      | Human antithrombin III gene, exon 1 and partial cds.  | 3.4     |
| 255    | AB000280    | Rattus norvegicus mRNA for peptide/histidine transporter, complete cds  | 3.4     |
| 256    | J03886      | Rat skeletal muscle myosin light chain kinase, complete cds.  | 3.4     |
| 257    | M16809      | Yeast (S.cerevisiae) CLS4 gene encoding a Ca regulatory protein, complete cds.  | 3.4     |
| 258    | X58286      | Drosophila genes z600, gdl, Eip28/29 and mex1   | 3.4     |
| 259    | X07267      | Rat gene 33 5'-region   | 3.4     |

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| SEQ ID | ACCESSION | DESCRIPTION  | P VALUE |
|--------|-----------|--|---------|
| 260    | Z68129    | H.sapiens IDH gamma gene and TRAP delta gene   | 3.4     |
| 261    | X87241    | H.sapiens mRNA for hFat protein  | 3.4     |
| 262    | Z93650    | O.bellus 28S rRNA gene, D2 variable region   | 3.4     |
| 263    | D87471    | Mus musculus mRNA for gsg3, complete cds   | 3.4     |
| 264    | L34193    | Ipomopsis aggregata chloroplast maturase   | 3.4     |
| 265    | AF012899  | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds  | 3.4     |
| 266    | X17318    | Zea mays chloroplast trnC gene, rpoB gene, rpoC1 gene, rpoC2 gene and rps2 gene for transfer RNA-Cys, RNA polymerase subunits beta, beta-1, beta-2 and ribosomal | 3.4     |
| 267    | L35661    | Homo sapiens (subclone H8 4 b9 from P1 35 H5 C8) DNA   | 3.4     |
| 268    | U25236    | Human immunodeficiency virus type 1 clone XSH159D1D envelope glycoprotein (env) pseudogene, v1-v5 region,  | 3.4     |
| 269    | L81392    | Homo sapiens (subclone 1 c12 from P1 H39) DNA  | 3.4     |
| 270    | M60172    | G.domesticus novel collagen protein mRNA, 3' end.  | 3.4     |
| 271    | M15263    | E.coli araBAD operon encoding L-ribulokinase, L-arabinose isomerase, and L-ribulose 5-phosphate 4-epimerase.   | 3.4     |
| 272    | S53273    | OMP=olfactory marker protein {promoter} [mice, Genomic,  | 3.4     |
| 273    | U22056    | Mus musculus fertilin alpha precursor (ADAM 1) mRNA,   | 3.3     |
| 274    | X63382    | Antithamnion sp. rhodoplast genes atpI, atpH, atpG, atpF, atpD, atpA, orf1, orf2 and orf3  | 3.3     |
| 275    | U67462    | Methanococcus jannaschii section 4 of 150 of the complete  | 3.3     |
| 276    | M24566    | Dictyostelium discoideum tRNA-Glu-GAA gene, clone  | 3.3     |
| 277    | L13609    | Human catalase (CAT) gene, exon 1, 5' end.   | 3.3     |
| 278    | Z11486    | Pinus strobus L. mRNA for pine globulin-1  | 3.3     |
| 279    | X03366    | Bovine spleen trypsin inhibitor II (SI) gene   | 3.3     |
| 280    | D49558    | Human DNA for gastric inhibitory polypeptide receptor, exon 5, 6, 7, 8, 9, 10, 11 and 12   | 3.3     |
| 281    | U52110    | Sulfolobus solfataricus putative ribokinase and Dbh genes, complete cds, and putative ATPase gene, partial cds   | 3.3     |
| 282    | M34663    | Human chaperonin (HSP60) non-functional pseudogene 4.  | 3.3     |
| 283    | X82303    | P.groenlandica mitochondrial cytochrome b gene   | 3.3     |
| 284    | D78174    | Mouse cerebellum mRNA for Zic4 protein, complete cds   | 3.3     |
| 285    | D86966    | Human mRNA for KIAA0211 gene, complete cds   | 3.3     |
| 286    | L13198    | Clortridium perfringens type B beta-toxin gene, complete   | 3.3     |
| 287    | J05516    | E.coli leucine-specific transport (LS-BP; LIV-BP) system (livHMGF) genes, complete cds.  | 3.3     |
| 288    | M58318    | Homo sapiens ala gene.   | 3.3     |
| 289    | X57297    | A. majus TAM1 gene for TNP1 and TNP2   | 3.3     |
| 290    | U33099    | Human immunodeficiency virus type 1 isolate GM4, envelope glycoprotein (env) gene, V1-V5 region, partial cds   | 3.3     |
| 291    | D29809    | Coptis japonica mRNA for S-adenosyl-L-methionine:scoulerine 9-O-methyltransferase, complete cds  | 3.3     |
| 292    | M12727    | Human T-cell surface antigen T3 delta-chain gene, exons 2,3,4 and 5, clone pKR-1.  | 3.3     |
| 293    | X54601    | Human MFD72 dinucleotide repeat DNA > :: gb I31132 I31132 Sequence 44 from patent US 5582979   | 3.2     |
| 294    | Y11740    | H.sapiens whn gene, exon 1a and 1b   | 3.2     |
| 295    | M24566    | Dictyostelium discoideum tRNA-Glu-GAA gene, clone  | 3.2     |
| 296    | S83358    | focal adhesion kinase/pp125FAK/FAK + {alternatively spliced} [rats, striatum, mRNA, 4575 nt]   | 3.2     |
| 297    | M68519    | Human pulmonary surfactant-associated protein SP-A (SFTP1) gene, complete cds.   | 3.2     |



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| SEQ ID | ACCESSION   | DESCRIPTION   | P VALUE |
|--------|-------------|---|---------|
| 298    | U22056      | Mus musculus fertilin alpha precursor (ADAM 1) mRNA,  | 3.2     |
| 299    | AB005803.1  | Homo sapiens DNA for histidine-rich glycoprotein,   | 3.2     |
| 300    | M24566      | Dictyostelium discoideum tRNA-Glu-GAA gene, clone   | 3.2     |
| 301    | X66139      | M.fascicularis mRNA for epididymal apical protein I   | 3.2     |
| 302    | U16955      | Plasmodium falciparum ATPase 2 gene, complete cds.  | 3.2     |
| 303    | M87108      | Human immunodeficiency virus type 2 (FOPOLC4) polymerase fragment.  | 3.2     |
| 304    | U67585      | Methanococcus jannaschii section 127 of 150 of the  | 3.2     |
| 305    | U70559      | Saccharomyces cerevisiae DNA repair/transcription protein Mms19p (MMS19) gene, complete cds   | 3.2     |
| 306    | D88191      | Chlorella Virus vChta-1 gene, complete cds  | 3.2     |
| 307    | M32352      | Mouse renin (Ren-1-d) gene, complete cds.   | 3.2     |
| 308    | X64406      | Marburg Virus RNA for ORF-2 and ORF-3   | 3.2     |
| 309    | NM_002763.1 | Homo sapiens prospero-related homeobox 1 protein (Prox 1) mRNA, complete cds  | 3.2     |
| 310    | Y11681      | Homo sapiens mRNA for mitochondrial ribosomal protein   | 3.2     |
| 311    | S80986      | svp[40]=svp-related nuclear receptor/retinoid signaling modulator [zebrafishes, mRNA, 3876 nt]  | 3.2     |
| 312    | Z18630      | R.norvegicus mRNA for J1-160/180 neural recognition   | 3.2     |
| 313    | AF012899    | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds   | 3.2     |
| 314    | X14336      | Filamentous Bacteriophage I2-2 genome   | 3.1     |
| 315    | U58884      | Mus musculus SH3-containing protein SH3P7 mRNA, complete cds. similar to Human Drebrin  | 3.1     |
| 316    | X66139      | M.fascicularis mRNA for epididymal apical protein I   | 3.1     |
| 317    | D90819      | E.coli genomic DNA, Kohara clone #328(39.4-39.8 min.)   | 3.1     |
| 318    | U78770      | Mus musculus spasmodic polypeptide (mSP) gene,  | 3.1     |
| 319    | U06083      | Human N-acetylgalactosamine 6-sulphatase  | 3.1     |
| 320    | U48228      | Plasmodium falciparum 5.8S ribosomal RNA gene, partial sequence, internal transcribed spacer 2, and large subunit ribosomal RNA gene, complete sequence               | 3       |
| 321    | X95188      | R.norvegicus mRNA for Pristanoyl-CoA Oxidase  | 3       |
| 322    | Z34932      | S.scrofa mRNA for protein phosphatase 2A 55 kDa regulatory subunit, alpha isoform (partial)   | 3       |
| 323    | U40837      | Ovine adenovirus terminal protein gene, partial cds, 52/55K, pIIIa, III, pVII, pX, pVI, II, endopeptidase and DNA binding protein genes, complete cds, and 100K hexon | 3       |
| 324    | X77233      | L.esculentum (de Ruiter 83G38) Adh2 gene  | 2.9     |
| 325    | M81341      | Plasmodium falciparum cysteine proteinase gene, complete  | 2.8     |
| 326    | X99832      | H.sapiens CLN3 gene, complete CDS   | 2.7     |
| 327    | M64703      | N.crassa valyl-tRNA synthetase (cyt-20/un-3) gene.  | 2.1     |
| 328    | AB001635.1  | Homo sapiens DNA for cGMP-binding cGMP-specific phosphodiesterase (PDE5), exon 21 and complete cds  | 1.9     |
| 329    | X12669      | H.sapiens gene for arginase exon 8 and 3'-flanking region   | 1.8     |
| 330    | M19238      | Yeast (S.cerevisiae) ribosomal protein L44' gene, complete  | 1.8     |
| 331    | AE001665    | Chlamydia pneumoniae section 81 of 103 of the complete  | 1.8     |
| 332    | X15603      | Human elastin gene, exon 1  | 1.8     |
| 333    | AE000553.1  | Helicobacter pylori 26695 section 31 of 134 of the complete   | 1.8     |
| 334    | AB022333    | obligately oligotrophic bacteria POC-111 DNA for 16S rRNA, partial sequence   | 1.8     |
| 335    | X51666      | S.cerevisiae DNA for SEC62 gene   | 1.8     |
| 336    | X16588      | B. nigra repeat DNA (clone pBN 35)  | 1.8     |
| 337    | U19253      | Xenopus laevis/gilli complement component C3 mRNA,  | 1.8     |

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| SEQ ID | ACCESSION   | DESCRIPTION   | P VALUE |
|--------|-------------|---|---------|
| 338    | U32770      | Haemophilus influenzae Rd section 85 of 163 of the  | 1.7     |
| 339    | U64618      | Propithecus verreauxi epsilon globin gene, 5' flanking region and exons 1-3, complete cds   | 1.7     |
| 340    | U39700      | Mycoplasma genitalium section 22 of 51 of the complete  | 1.7     |
| 341    | Z82656      | R.prowazekii genomic DNA fragment (clone A45F)  | 1.7     |
| 342    | AL049337.1  | Homo sapiens mRNA; cDNA DKFZp564P016 (from clone DKFZp564P016)  | 1.7     |
| 343    | Z60848      | H.sapiens CpG island DNA genomic MseI fragment, clone 36g10, forward read cp36g10.fl1a  | 1.7     |
| 344    | Z28054      | S.cerevisiae chromosome XI reading frame ORF YKL054c  | 1.7     |
| 345    | S79213      | phosphatase inhibitor-2=cytosolic regulatory subunit of type 1 protein phosphatase [rats, brain, mRNA, 867 nt]  | 1.7     |
| 346    | X82265      | C.anuum mRNA for 1-aminocyclopropane-1-carboxylate  | 1.6     |
| 347    | U46561      | Tetrahymena thermophila polyubiquitin (TTU3) gene, complete cds, and RNA polymerase II subunit 2  | 1.5     |
| 348    | M12132      | Quail fast skeletal muscle troponin I gene, complete cds.   | 1.5     |
| 349    | X98097      | M.musculus CD22 promoter region   | 1.4     |
| 350    | D29963      | Homo sapiens mRNA for CD151, complete cds   | 1.4     |
| 351    | D10471      | Herpes simplex virus type 2 genomic DNA for 0.74-0.84 region, complete cds  | 1.4     |
| 352    | U34673      | Micoureus demerarae cytochrome b light strand gene, mitochondrial gene encoding mitochondrial protein,  | 1.3     |
| 353    | M15274      | Human Pro-tRNA and Leu-tRNA genes.  | 1.3     |
| 354    | AJ000486    | Trichomonas vaginalis mgl1 gene   | 1.3     |
| 355    | Z47075      | Caenorhabditis elegans cosmid E02H1, complete sequence [Caenorhabditis elegans]   | 1.3     |
| 356    | NM_001854.1 | Homo sapiens collagen, type XI, alpha 1 type XI collagen (COL11A1) mRNA, complete cds.  | 1.3     |
| 357    | U37056      | Clostridium cellulovorans endo-1,4-beta glucanase EngF (engF) gene, complete cds  | 1.3     |
| 358    | U53328      | Human cyclin G mRNA, complete cds.  | 1.3     |
| 359    | Z48230      | Caenorhabditis elegans cosmid F42G10, complete sequence [Caenorhabditis elegans]  | 1.3     |
| 360    | L42102      | Homo sapiens (subclone 2 c7 from P1 H25) DNA sequence.  | 1.3     |
| 361    | X89417      | S.cerevisiae DNA for protein phosphatase T gene   | 1.3     |
| 362    | Z79884      | H.sapiens chromosome 22 CpG island DNA genomic MseI fragment, clone 303c5, complete read  | 1.3     |
| 363    | Z68129      | H.sapiens IDH gamma gene and TRAP delta gene  | 1.3     |
| 364    | U13800      | Human insulin-like growth factor I (IGF1) gene, intron 4.   | 1.3     |
| 365    | L28995      | Oryza sativa 3-hydroxy-3-methylglutaryl coenzyme A reductase gene, complete cds.  | 1.3     |
| 366    | L43493      | Saccharomyces cerevisiae Jsn1 gene, complete cds  | 1.3     |
| 367    | X08066      | Caenorhabditis elegans myo-2 gene for myosin heavy chain 2 (MHC-C)  | 1.3     |
| 368    | U37056      | Clostridium cellulovorans endo-1,4-beta glucanase EngF (engF) gene, complete cds  | 1.3     |
| 369    | U19905      | Rickettsia tsutsugamushi TA716 56 kDa type-specific antigen gene, complete cds.   | 1.3     |
| 370    | U74496      | Human chromosome 4q35 subtelomeric sequence   | 1.3     |
| 371    | U46781      | Pasteurella haemolytica putative coproporphyrinogen III oxidase (hemN) gene, partial cds, leukotoxin transcriptional activator and restriction modification methylase subunit | 1.3     |
| 372    | X77300      | S.scrofa genomic DNA microsatellite SO344   | 1.3     |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION | DESCRIPTION   | P VALUE |
|--------|-----------|---|---------|
| 373    | U53745    | Feline immunodeficiency virus isolate FIV-Pco336-7 pol polyprotein (pol) gene, partial cds  | 1.3     |
| 374    | L08266    | Mouse Facc mRNA, complete cds.  | 1.3     |
| 375    | X52519    | Human gene for tyrosine aminotransferase (TAT)  | 1.3     |
| 376    | U87543    | Aedes aegypti steroid hormone receptor homolog protein gene, complete cds   | 1.3     |
| 377    | D16682    | Mycoplasma hyopneumoniae gene for 46 kDa surface antigen, complete cds  | 1.3     |
| 378    | AF022725  | Hordeum vulgare limit dextrinase (HvLD99) gene, complete  | 1.3     |
| 379    | L18987    | Human alpha-2 type XI collagen mRNA, partial cds.   | 1.3     |
| 380    | Y09400    | S.scrofa mRNA for apical organic cation transporter protein   | 1.3     |
| 381    | U10117    | Human endothelial-monocyte activating polypeptide II mRNA, complete cds.  | 1.3     |
| 382    | U02618    | Saccharomyces cerevisiae molasses resistance  | 1.3     |
| 383    | Z60848    | H.sapiens CpG island DNA genomic MseI fragment, clone 36g10, forward read cpg36g10.ft1a   | 1.3     |
| 384    | X63203    | H.sapiens gene for pregnancy specific beta-1 glycoprotein > :: gb S49771 S49771 pregnancy-specific beta 1 glycoprotein {5' region, promoter} [human, placenta, Genomic, 3036 nt]      | 1.3     |
| 385    | L31854    | Mus musculus Ig epsilon-chain C gene, exon 4, M gene,   | 1.3     |
| 386    | X16588    | B. nigra repeat DNA (clone pBN 35)  | 1.3     |
| 387    | U25342    | Xenopus laevis epithelial sodium channel, gamma subunit (gammamaxENaC) mRNA, complete cds.  | 1.3     |
| 388    | L40806    | Neurospora crassa open reading frame gene, complete cds, met-10+ gene, complete cds   | 1.3     |
| 389    | S49760    | diacylglycerol kinase [rats, brain, mRNA, 3043 nt]  | 1.3     |
| 390    | L15328    | Saccharomyces cerevisiae RNA helicase gene, complete cds.   | 1.3     |
| 391    | S50809    | protein LG=immunoglobulin binding protein Recombinant,  | 1.3     |
| 392    | U14662    | Baboon herpesvirus HVP2 gB glycoprotein (UL27) gene, complete cds.  | 1.3     |
| 393    | U13173    | Human intestinal H+/peptide cotransporter (Hpept1) gene, complete cds   | 1.3     |
| 394    | W71212    | me33e04.r1 Soares mouse embryo NbME13.5 14.5 Mus musculus cDNA clone 389310 5' similar to SW:S105_HUMAN P33763 S100 CALCIUM-BINDING PROTEIN A5 ; > :: emb X99921 MMS100A13 M.musculus | 1.3     |
| 395    | U25536    | Petunia hybrida alcohol dehydrogenase-2 (Adh2) gene, promoter, 5'UTR, and partial cds.  | 1.3     |
| 396    | X75014    | M.musculus Phox2 mRNA for homeodomain protein   | 1.3     |
| 397    | Z49436    | S.cerevisiae chromosome X reading frame ORF YJL161w   | 1.3     |
| 398    | X12780    | Chicken MHC class I (B-F) mRNA F10  | 1.3     |
| 399    | X04319    | E. coli fhuB gene involved in transport of ferrichrome  | 1.3     |
| 400    | U61297    | Human progesterone receptor (PGR) gene, far 5' flanking   | 1.3     |
| 401    | X99518    | Herpesvirus saimiri virion, transformation-associated region, strain C139   | 1.3     |
| 402    | M24001    | Mink enteritis virus antigenic type 2 capsid protein genes VP1 and VP2, complete cds.   | 1.3     |
| 403    | U44877    | Arabidopsis thaliana geranylgeranyl pyrophosphate synthase (GGPS3) mRNA, partial cds  | 1.3     |
| 404    | AB003431  | Incilaria fruhstorferi mRNA for Incilarin B, complete cds   | 1.3     |
| 405    | M12792    | Human steroid 21-hydroxylase (P-450(C21)) B gene, complete cds, clone lambda-C21B-1.  | 1.3     |
| 406    | M28548    | Human mutant 21-hydroxylase B gene, complete cds.   | 1.3     |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION  | DESCRIPTION  | P VALUE |
|--------|------------|--|---------|
| 407    | Y10260     | H.sapiens EYA1A gene   | 1.3     |
| 408    | U41740     | Human trans-Golgi p230 mRNA, complete cds  | 1.3     |
| 409    | X02295     | Paramecium 5' region of gene for surface protein 51A   | 1.3     |
| 410    | S45791     | band 3-related protein=renal anion exchanger AE2 homolog [rabbits, New Zealand White, ileal epithelial cells, mRNA,  | 1.3     |
| 411    | AE000625.1 | Helicobacter pylori 26695 section 103 of 134 of the  | 1.3     |
| 412    | X16028     | R.norvegicus gene encoding alkaline phosphatase, exon 3 and joined CDS   | 1.3     |
| 413    | M73461     | Saccharomyces cerevisiae FL100 RNA14 gene, complete  | 1.3     |
| 414    | L08845     | Drosophila melanogaster disabled mRNA, complete cds  | 1.3     |
| 415    | AE000635.1 | Helicobacter pylori 26695 section 113 of 134 of the  | 1.2     |
| 416    | L39962     | Medicago sativa middle repetitive DNA  | 1.2     |
| 417    | U55371     | Caenorhabditis elegans cosmid T19F4.   | 1.2     |
| 418    | X13679     | Oryza sativa H3 histone pseudogene H3R-12  | 1.2     |
| 419    | J00223     | Homo sapiens epsilon-1 pseudogene (IGHEP1) gene, CH3 and CH4 regions, exons 3 and 4 and partial sequence   | 1.2     |
| 420    | AE000649.1 | Helicobacter pylori 26695 section 127 of 134 of the  | 1.2     |
| 421    | X52256     | A.thaliana tufA gene for elongation factor Tu  | 1.2     |
| 422    | M81388     | Chilo iridescent virus DNA-directed RNA polymerase and helicase genes, complete cds's. > :: gb S75674 S75674 DNA helicase homolog, DNA-depenent RNA polymerase largest subunit homolog {fragment M} [Chilo iridescent virus CIV, | 1.2     |
| 423    | S57565     | histamine H2-receptor [rats, Genomic, 1928 nt]   | 1.2     |
| 424    | X84347     | H.sapiens mRNA for sperm adhesion molecule hPH-20  | 1.2     |
| 425    | X53579     | A.thaliana agamous (AG) gene   | 1.2     |
| 426    | Y09539     | L.japonicus gene encoding RING finger protein  | 1.2     |
| 427    | L05500     | Human fetal brain adenylyl cyclase mRNA, 3' end.   | 1.2     |
| 428    | X68019     | Feline Immunodeficiency Virus GAG gene   | 1.2     |
| 429    | L76739     | Human immunodeficiency virus type 2 (HIV-2 ARM) proviral surface glycoprotein (gp125) gene, partial cds. Type 2 partial envelope sequence, isolate arm from mother in  | 1.2     |
| 430    | L38769     | Pisolithus tinctorius (F00035) mRNA, EST0049.  | 1.2     |
| 431    | L39786     | Lupinus angustifolius conglutin gamma gene, complete cds   | 1.2     |
| 432    | D10510     | Homo sapiens MAT gene for mitochondrial acetoacetyl-CoA thiolase, exon 11  | 1.2     |
| 433    | U47687     | Streptococcus pneumoniae immunoglobulin A1 protease (iga) gene, complete cds   | 1.2     |
| 434    | U63922     | Xenopus laevis beta-transducin repeat containing protein-3 mRNA, partial cds   | 1.2     |
| 435    | Z27234     | S.tuberosum STACS2 gene for 1-Aminocyclopropane-1-carboxylate synthase   | 1.2     |
| 436    | X65365.1   | R.norvegicus GHF1 gene, exon 2B and alternative spliced  | 1.2     |
| 437    | X04336     | Podospira anserina race A mitochondrial DNA class II intron downstream of alpha-sen DNA near CoI gene 5'end  | 1.2     |
| 438    | X12864     | Yeast (S.douglasi) NAM2 gene for mitochondrial leucyl-tRNA synthetase (EC 6.1.1.4)   | 1.2     |
| 439    | U66032     | Methanosarcina thermophila CO dehydrogenase/acetyl-CoA synthase alpha subunit (cdhA), epsilon subunit (cdhB), beta subunit (cdhC), and NifH class IV protein homolog genes, complete cds, CO dehydrogenase/acetyl-CoA synthas... | 1.2     |
| 440    | L08266     | Mouse Facc mRNA, complete cds.   | 1.2     |
| 441    | M64085     | Mouse spi2 proteinase inhibitor (spi2/eb1) mRNA, 3' end.   | 1.2     |
| 442    | X12773     | Strongylocentrotus purpuratus Spec2d gene 5'-flank and   | 1.2     |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 443    | U13988      | Peanut chlorotic streak caulimovirus, complete genome.   | 1.2     |
| 444    | U23180      | Caenorhabditis elegans cosmid C28F5  | 1.2     |
| 445    | M20537      | Mouse thyrotropin beta-subunit gene, exon 5.   | 1.2     |
| 446    | U25881      | Agrius cingulata NADH dehydrogenase subunit 1 protein,   | 1.2     |
| 447    | Y08581      | F.rubripes hsp70-4 gene, complete  | 1.2     |
| 448    | L31848      | Homo sapiens serine/threonine kinase receptor 2  | 1.2     |
| 449    | M15840      | Human interleukin 1-beta (IL1B) gene, complete cds.  | 1.2     |
| 450    | Z23977      | H. sapiens (D6S443) DNA segment containing (CA) repeat; clone AFM277wb5; single read   | 1.2     |
| 451    | X14592      | P.hybrida chsB gene for chalcone synthase  | 1.2     |
| 452    | Z49900      | P.sativum mRNA for small GTP-binding protein   | 1.2     |
| 453    | U28154      | Haemophilus somnus cryptic prophage genes, capsid scaffolding protein gene, partial cds, major capsid protein precursor, endonuclease, capsid completion protein, tail synthesis proteins, holin, and lysozyme genes, complet... | 1.2     |
| 454    | D13987      | Brassica napus PE3-PEPCase gene for phosphoenolpyruvate carboxylase, complete cds  | 1.2     |
| 455    | D45243      | Mouse mRNA for ctk, complete cds   | 1.2     |
| 456    | U81144      | Caenorhabditis elegans non-alpha nicotinic acetylcholine receptor subunit precursor (unc-29) gene, complete cds  | 1.2     |
| 457    | Z92970      | Caenorhabditis elegans cosmid H06O01, complete sequence [Caenorhabditis elegans]   | 1.2     |
| 458    | L44118      | Homo sapiens proximal CMT1A-REP repeat   | 1.2     |
| 459    | M17120      | D.melanogaster achaete gene encoding nerve differentiation, complete cds.  | 1.2     |
| 460    | U55737      | Human ataxia-telangiectasia (ATM) exon 40  | 1.2     |
| 461    | X63525      | P.vulgaris loxA gene for lipoyxygenase   | 1.2     |
| 462    | D16402      | Fruitfly Dcdrk gene for Dcdrk kinase, complete cds   | 1.2     |
| 463    | M65287      | Mouse activin receptor (ActR) mRNA, complete cds.  | 1.2     |
| 464    | X13679      | Oryza sativa H3 histone pseudogene H3R-12  | 1.2     |
| 465    | D28484      | Aspergillus oryzae pgkA gene for phosphoglycerate kinase, complete cds > :: dbj E04898 E04898 gDNA encoding  | 1.2     |
| 466    | AE000283    | Escherichia coli K-12 MG1655 section 173 of 400 of the complete genome   | 1.2     |
| 467    | X99832      | H.sapiens CLN3 gene, complete CDS  | 1.2     |
| 468    | U06864      | Rattus norvegicus follistatin-related protein precursor mRNA, complete cds.  | 1.2     |
| 469    | M87710      | Human simple repeat polymorphism.  | 1.2     |
| 470    | M64497      | Human apolipoprotein AI regulatory protein (ARP-1) mRNA, complete cds.   | 1.2     |
| 471    | M87710      | Human simple repeat polymorphism.  | 1.2     |
| 472    | X60196      | D.melanogaster partial Mhc gene for myosin heavy chain   | 1.2     |
| 473    | X99719      | S.enterica hsdM, hsdS & hsdR genes   | 1.2     |
| 474    | Z95706      | Microtus rossiaemeridionalis repetitive DNA  | 1.2     |
| 475    | L76372      | Musca domestica (clone F0) arylphorin mRNA fragment.   | 1.2     |
| 476    | D26359      | Exogenous mouse mammary tumor virus gene for superantigen, complete cds  | 1.2     |
| 477    | NM_000694.1 | Homo sapiens aldehyde dehydrogenase 7 (ALDH7) mRNA > :: gb U10868 HSU10868 Human aldehyde dehydrogenase ALDH7 mRNA, complete cds.  | 1.2     |
| 478    | AF015882    | Caenorhabditis elegans protein tyrosine phosphatase (ptp-2) mRNA, complete cds   | 1.2     |
| 479    | M58047      | Mouse 2',3'-cyclic-nucleotide 3'-phosphodiesterase gene,   | 1.2     |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION   | P VALUE |
|--------|-------------|---|---------|
| 480    | U71121      | Arabidopsis pyruvate decarboxylase-1 (Pdc1) gene,   | 1.2     |
| 481    | U60804      | Danio rerio tumor suppressor p53 (p53) mRNA, complete   | 1.2     |
| 482    | X99254      | P.falciparum gene encoding primase, small subunit   | 1.2     |
| 483    | D10197      | Bovine mRNA for histamine H1 receptor, complete cds   | 1.2     |
| 484    | Y09764      | Homo sapiens GABRE gene, exon 2-8   | 1.2     |
| 485    | U72396      | Lycopersicon esculentum class II small heat shock protein Le-HSP17.6 mRNA, complete cds   | 1.2     |
| 486    | X72950      | X.laevis H3l gene for histone H3  | 1.2     |
| 487    | D29956      | Human mRNA for KIAA0055 gene, complete cds  | 1.2     |
| 488    | X56003      | E.coli (plasmid pFM205) faeE and faeF genes   | 1.2     |
| 489    | M64269      | Human mast cell chymase gene, complete cds.   | 1.2     |
| 490    | AB002963    | Human immunodeficiency virus type 1 env gene for envelope glycoprotein, partial cds, clone 205E5B2t   | 1.2     |
| 491    | X90846      | H.sapiens mRNA for mixed lineage kinase 2   | 1.2     |
| 492    | X03715      | Spiroplasma melliferum tRNA gene cluster  | 1.2     |
| 493    | U83494      | Tropidurus hispidus ATPase subunit 6 (ATPase6) gene, mitochondrial gene encoding mitochondrial protein, partial                               | 1.2     |
| 494    | U60804      | Danio rerio tumor suppressor p53 (p53) mRNA, complete   | 1.2     |
| 495    | M24081      | Tetrahymena pyriformis (clone pTU2) ubiquitin genes, 3'and  | 1.2     |
| 496    | U54803      | Mus musculus cysteine protease (Lice) gene, exons 3-7, and complete cds   | 1.2     |
| 497    | L13748      | Human dihydrolipoamide dehydrogenase gene, exon 1.  | 1.2     |
| 498    | U29390      | Chrysosporium parvum 18S ribosomal RNA gene, partial  | 1.2     |
| 499    | L81694      | Homo sapiens (subclone 1_d1 from P1 H56) DNA sequence   | 1.2     |
| 500    | X65366.1    | R.norvegicus GHF1 gene, intron 2  | 1.2     |
| 501    | U74651      | Human DNA polymerase gamma (polg) gene, promoter region and partial cds   | 1.2     |
| 502    | X65591      | S.mansoni mRNA for myosin II heavy chain  | 1.2     |
| 503    | D17255      | Human HepG2 3' region MboI cDNA, clone hmd5c12m3  | 1.2     |
| 504    | L33792      | Senecio odoros lipid transfer protein mRNA, 3' end.   | 1.2     |
| 505    | L13612      | Drosophila melanogaster dead-box protein (dbp45A) gene, complete cds. > :: emb Z23266 DMDEADBXA<br>D.melanogaster DEAD-box gene, complete CDS | 1.2     |
| 506    | X81650      | M.musculus mRNA for c-ros protooncogene   | 1.2     |
| 507    | NM_000037.1 | Homo sapiens ankyrin 1, erythrocytic (ANK1) mRNA > :: gb M28880 HUMANK Human erythroid ankyrin mRNA,  | 1.2     |
| 508    | X98543      | A.thaliana endo-1,4-beta-glucanase gene   | 1.2     |
| 509    | D89501      | Human PBI gene, complete cds  | 1.2     |
| 510    | Z82174      | Human DNA sequence from cosmid B20F6 on chromosome 22, complete sequence [Homo sapiens]   | 1.2     |
| 511    | M36881      | Human lymphocyte-specific protein tyrosine kinase   | 1.2     |
| 512    | U92014      | Human clone 121711 defective mariner transposon Hsmar2 mRNA sequence  | 1.2     |
| 513    | U09948      | Morone saxatilis Hox-B5-like homeodomain protein gene,  | 1.2     |
| 514    | M58155      | African swine fever virus multigene families 360 and 110.   | 1.2     |
| 515    | U30500      | Sicilian sandfly fever virus glycoprotein precursor polypeptide mRNA, complete cds.   | 1.2     |
| 516    | L09190      | Human trichohyalin (TRHY) gene, complete cds.   | 1.2     |
| 517    | U67508      | Methanococcus jannaschii section 50 of 150 of the complete  | 1.2     |
| 518    | M81186      | Clostridium botulinum neurotoxin type B (botB) gene,  | 1.2     |
| 519    | U93037      | Homo sapiens elastin gene, exons 5-27 and alternatively spliced products, partial cds   | 1.2     |
| 520    | D87454      | Human mRNA for KIAA0265 gene, partial cds   | 1.2     |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION  | DESCRIPTION  | P VALUE |
|--------|------------|--|---------|
| 521    | D87558     | Gallus gallus mRNA for C-Serrate-2, partial cds  | 1.2     |
| 522    | Z32847     | L.infantum (10541) kinetoplast DNA   | 1.2     |
| 523    | U09584     | Human PL6 protein (PL6) mRNA, complete cds.  | 1.2     |
| 524    | AC001530   | Homo sapiens (subclone 2_b8 from P1 H56) DNA sequence  | 1.2     |
| 525    | X74322     | H.sapiens gap-I gene   | 1.2     |
| 526    | D29792     | Mouse gene for T cell receptor gamma chain   | 1.2     |
| 527    | M24001     | Mink enteritis virus antigenic type 2 capsid protein genes VP1 and VP2, complete cds.  | 1.2     |
| 528    | K02819     | Rabbit MHC RLA region class I 19-1 gene, complete cds.   | 1.2     |
| 529    | L33879     | Insertion sequence IS1245 (from Mycobacterium avium) transposase gene, complete cds.   | 1.2     |
| 530    | AE000607.1 | Helicobacter pylori 26695 section 85 of 134 of the complete  | 1.2     |
| 531    | W71212     | me33e04.r1 Soares mouse embryo NbME13.5 14.5 Mus musculus cDNA clone 389310 5' similar to SW:S105_HUMAN P33763 S100 CALCIUM-BINDING PROTEIN A5 ; > :: emb[X99921 MMS100A13 M.musculus  | 1.2     |
| 532    | X83078     | M.musculus nid gene (exon 4)   | 1.2     |
| 533    | U95041     | Rattus norvegicus transcriptional corepressor KAP1/TIF1B mRNA, partial cds   | 1.2     |
| 534    | X58907     | H.sapiens CYP21 gene for steroid 21-monooxygenase  | 1.2     |
| 535    | L11669     | Human tetracycline transporter-like protein mRNA,  | 1.2     |
| 536    | L37053     | Gorilla gorilla (clone Gor-ID) Rhesus-like protein mRNA,   | 1.2     |
| 537    | M33782     | Human TFEB protein mRNA, partial cds.  | 1.2     |
| 538    | D78172     | Spinacia oleracea mRNA for 26S proteasome beta subunit, complete cds   | 1.2     |
| 539    | M33782     | Human TFEB protein mRNA, partial cds.  | 1.2     |
| 540    | M33782     | Human TFEB protein mRNA, partial cds.  | 1.2     |
| 541    | Z54312     | L.sake las[A,M,P,T] genes  | 1.1     |
| 542    | S81773     | inwardly rectifying K+ channel IRK3(HIT) [hamsters, insulinoma cell line HIT-T15, mRNA Partial, 1791 nt]   | 1.1     |
| 543    | Z78910     | H.sapiens flow-sorted chromosome 6 HindIII fragment,   | 1.1     |
| 544    | U08408     | Xenopus laevis arginase 3 mRNA, complete cds.  | 1.1     |
| 545    | U26444     | Bacillus subtilis 2,3-dihydro-2,3-dihydroxybenzoate dehydrogenase (dhbA), isochorismate synthase (dhbC), 2,3-dihydroxybenzoate-AMP ligase (dhbE), and isochorismatase (dhbB) genes, complete cds, and (dhbF) gene, partial cds | 1.1     |
| 546    | X62170     | N.crassa bli-7 gene  | 1.1     |
| 547    | U94403     | Rattus norvegicus proton gated cation channel ASIC1 mRNA, complete cds   | 1.1     |
| 548    | AJ000498   | Homo sapiens DNA for integration site of HBV in a hepatocellular carcinoma   | 1.1     |
| 549    | X99485     | L.luteus mRNA for alpha-subunit of G protein   | 1.1     |
| 550    | U67520     | Methanococcus jannaschii section 62 of 150 of the complete   | 1.1     |
| 551    | L25415     | Mycoplasma pulmonis glutamyl tRNA synthetase (gltX) gene, restriction-modification enzyme subunits S1A, R1, M1, S1B (hsds1A, hsdR1, hsdM1, hsdS1B) genes, complete cds's, DNA polymerase III (polC) gene, 3' region.           | 1.1     |
| 552    | X68107     | M.sativa msCHSII mRNA for chalcone synthase  | 1.1     |
| 553    | X89246     | D.melanogaster mRNA for DHR38 protein  | 1.1     |
| 554    | X64332     | C.lewisii PgiC2-a gene for phosphoglucose isomerase  | 1.1     |
| 555    | U47331     | Rattus norvegicus metabotropic glutamate receptor 4b mRNA, complete cds.   | 1.1     |
| 556    | X16055     | Bacteriophage T4 gene 20 encoding gp20, structural protein   | 1.1     |



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| SEQ ID | ACCESSION | DESCRIPTION   | P VALUE |
|--------|-----------|---|---------|
| 557    | D00596    | Homo sapiens gene for thymidylate synthase, exons 1, 2, 3, 4, 5, 6, 7, complete cds   | 1.1     |
| 558    | X14639    | Tomato ribosomal DNA intergenic spacer  | 1.1     |
| 559    | U67520    | Methanococcus jannaschii section 62 of 150 of the complete  | 1.1     |
| 560    | Y11786    | R.prowazekii ksgA gene and 2 open reading frames  | 1.1     |
| 561    | Z81065    | Caenorhabditis elegans cosmid F16C3, complete sequence [Caenorhabditis elegans]   | 1.1     |
| 562    | X60694    | C.perfringens plasmid epsilon-toxin gene  | 1.1     |
| 563    | X52648    | Schizosaccharomyces pombe p68 gene for p68 protein  | 1.1     |
| 564    | X04078    | Potato patatin pseudogene (SA10C)   | 1.1     |
| 565    | U38783    | Schizosaccharomyces pombe brefeldin A resistance protein (hba1) and unknown orf genes, complete cds   | 1.1     |
| 566    | U32769    | Haemophilus influenzae Rd section 84 of 163 of the  | 1.1     |
| 567    | D89066    | Staphylococcus aureus DNA for DnaA, complete cds  | 1.1     |
| 568    | U07797    | Rattus norvegicus Sprague-Dawley (T1-alpha) mRNA,   | 1.1     |
| 569    | L14710    | C. elegans cosmid K02D10.   | 1.1     |
| 570    | U42599    | Borrelia burgdorferi plasmid cp18, OspE (ospE) gene,  | 1.1     |
| 571    | U48726    | Human epidermal growth factor receptor (EGFR) precursor-mRNA, exons 8 and 9, partial cds  | 1.1     |
| 572    | U38844    | Xenopus laevis cyclin-dependent kinase inhibitor p28 gene, complete cds   | 1.1     |
| 573    | S82864    | Elk-3=Ets transcription factor [mice, 16-day embryos,   | 1.1     |
| 574    | X65720    | M.musculus gene for protein kinase C-gamma (exon1 and   | 1.1     |
| 575    | D14484    | Hepatitis C virus strain J33 genomic RNA, complete genome   | 1.1     |
| 576    | L11998    | Staphylococcus aureus conjugative transfer gene complex   | 1.1     |
| 577    | D14339    | Rice mitochondrion DNA for ATPase subunit 6 and ORFs, complete cds  | 1.1     |
| 578    | D38413    | Yeast DNA for Ppf2p, complete cds   | 1.1     |
| 579    | D90210    | Bacteriophage c-st (from C. botulinum) C1-tox gene for botulinum C1 neurotoxin  | 1.1     |
| 580    | X67838    | B.napus DNA for myrosinase  | 1.1     |
| 581    | X17053    | Rat immediate-early serum-responsive JE gene  | 1.1     |
| 582    | X12426    | Xenopus laevis U1 70K gene exon 4, 5, 6 and 7   | 1.1     |
| 583    | U55043    | Bacillus subtilis plasmid pPOD2000 Rep, RapAB, RapA, ParA, ParB, and ParC genes, complete cds.  | 1.1     |
| 584    | M34046    | Human placental protein 14 (PP14) gene, complete cds.   | 1.1     |
| 585    | U52367    | Clostridium acetobutylicum ATCC 824 F-type ATP synthase subunit a (atpA) gene, F-type ATP synthase subunit c (atpC) gene, and F-type ATP synthase subunit b | 1.1     |
| 586    | Z35955    | S.cerevisiae chromosome II reading frame ORF YBR086c  | 1.1     |
| 587    | U53179    | Caenorhabditis elegans cosmid T27B2.  | 1.1     |
| 588    | X77253    | C.herbarum Cla h III mRNA > :: gb I26207 I26207 Sequence 1 from patent US 5556953   | 1.1     |
| 589    | X72713    | A.franciscana mRNA for Sarco/endoplasmic reticulum Ca-  | 1.1     |
| 590    | U29145    | Caenorhabditis elegans (mab-18) mRNA, transcript  | 1.1     |
| 591    | U06061    | Cubanichthys pengelleyi mitochondrial control region, partial sequence  | 1.1     |
| 592    | X62244    | B.mycoides blaI gene for beta-lactamase I   | 1.1     |
| 593    | M88355    | Mouse oxytocin-neurophysin I gene, complete cds   | 1.1     |
| 594    | U83489    | Emericella nidulans septin B (aspB) mRNA, complete cds  | 1.1     |
| 595    | M18193    | Human inter-alpha-trypsin inhibitor heavy chain mRNA, partial cds, clones lambda-HuHITI-[9,33].   | 1.1     |
| 596    | U71273    | Sus scrofa glucosidase II mRNA, complete cds  | 1.1     |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION | DESCRIPTION   | P VALUE |
|--------|-----------|---|---------|
| 597    | S53497    | immunoglobulin epsilon chain constant region=secreted form {3' region} [human, B cell myeloma U-266, Genomic,                                       | 1.1     |
| 598    | U25119    | Caenorhabditis elegans calcium channel alpha-1 subunit homolog Unc-2 (unc-2) gene, partial cds.   | 1.1     |
| 599    | U56959    | Caenorhabditis elegans cosmid T21F4.  | 1.1     |
| 600    | X99485    | L.luteus mRNA for alpha-subunit of G protein  | 1.1     |
| 601    | L35848    | Homo sapiens IgE receptor beta chain (HTm4) mRNA,   | 1.1     |
| 602    | U93237    | Human menin (MEN1) gene, complete cds   | 1.1     |
| 603    | L07042    | Medicago sativa MAP kinase MsERK1 mRNA, complete  | 1.1     |
| 604    | Z36977    | N.plumbaginifolia mRNA for catalase (cat3 gene)   | 1.1     |
| 605    | J00738    | Rattus norvegicus submaxillary gland alpha-2u globulin mRNA, complete cds.  | 1.1     |
| 606    | X03018    | Xenopus laevis histone gene cluster XIH3-A with genes H1A, H2B, H3 and H4   | 1.1     |
| 607    | X68449    | L.esculentum U6 snRNA pseudogene (LeU6.1ps)   | 1.1     |
| 608    | U53921    | Pneumocystis carinii major surface glycoprotein   | 1.1     |
| 609    | M87106    | Human immunodeficiency virus type 2 (FOPOLC2) polymerase fragment. > :: gb M87107 HIVPOLC3 Human immunodeficiency virus type 2 (FOPOLC3) polymerase | 1.1     |
| 610    | U84539    | Human dystrobrevin (DTN) gene, exon 11A   | 1.1     |
| 611    | J02896    | S.purpuratus speract egg protein mRNA, complete cds.  | 1.1     |
| 612    | J02896    | S.purpuratus speract egg protein mRNA, complete cds.  | 1.1     |
| 613    | AF016253  | Klebsiella aerogenes D-amino acid dehydrogenase   | 1.1     |
| 614    | L22173    | Saccharomyces cerevisiae aminonitrophenyl propanediol (ANP1), UV excision repair protein (RAD23), cytochrome c isozyme (CYC7) genes, complete cds.  | 1.1     |
| 615    | U41357    | Tetrahymena thermophila P-type ATPase (TPA11) gene,   | 1.1     |
| 616    | X14383    | Bunyamwera virus L protein RNA, complete cds  | 1.1     |
| 617    | U50378    | Mus musculus DNA repair enzyme (Ku 70) gene, exon 13 and complete cds   | 1.1     |
| 618    | Z18278    | Mus musculus of 5HT5 receptor cDNA gene encoding 5HT5 serotonin receptor  | 1.1     |
| 619    | U14172    | Mus musculus p162 protein mRNA, complete cds.   | 1.1     |
| 620    | X76762    | H.sapiens serotonin transporter gene, exon 14   | 1.1     |
| 621    | U62055    | Bacillus subtilis CzcD (czcD) gene, partial cds, TrkA (trkA) gene, complete cds   | 1.1     |
| 622    | X81847    | E.carotovora pel1, pel2 and pel3 genes  | 1.1     |
| 623    | M25477    | Caenorhabditis elegans collagen (col6) gene, complete cds.  | 1.1     |
| 624    | X97196    | D.melanogaster X gene   | 1.1     |
| 625    | L39059    | Homo sapiens transcription factor SL1 mRNA, complete  | 1.1     |
| 626    | M21790    | X.laevis complement component 3 (C3) mRNA, 3' end.  | 1.1     |
| 627    | X95161    | H.sapiens brca2 gene exon 11 > :: emb A62786.1 A62786 Sequence 27 from Patent WO9719110   | 1.1     |
| 628    | K02446    | Chicken smooth-muscle alpha-tropomyosin gene, complete  | 1.1     |
| 629    | U24171    | Mus musculus p21 (WAF1) gene, partial promoter sequence   | 1.1     |
| 630    | Z26306    | H.sapiens isoform 1 gene for L-type calcium channel, exons  | 1.1     |
| 631    | U23070    | Human putative transmembrane protein (nma) mRNA,  | 1.1     |
| 632    | AE000046  | Mycoplasma pneumoniae section 46 of 63 of the complete  | 1.1     |
| 633    | X17548    | D. melanogaster singed gene, exon 1   | 1.1     |
| 634    | U54497    | Xenopus laevis integrin alpha 4 mRNA, complete cds.   | 1.1     |
| 635    | J02793    | Mouse R and L1 (3' end) repetitive elements.  | 1.1     |
| 636    | D10832    | Equine herpesvirus genomic DNA for 'TREC' OCT-  | 1.1     |
| 637    | X51766    | L.polyphyllus mRNA for ribosomal protein S16  | 1.1     |

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| SEQ ID | ACCESSION   | DESCRIPTION   | P VALUE |
|--------|-------------|---|---------|
| 638    | U60804      | Danio rerio tumor suppressor p53 (p53) mRNA, complete   | 1.1     |
| 639    | Z79068      | H.sapiens flow-sorted chromosome 6 HindIII fragment,  | 1.1     |
| 640    | Z73585      | S.cerevisiae chromosome XVI reading frame ORF   | 1.1     |
| 641    | U22818      | Cricetulus griseus SRD-2 mutant sterol regulatory element binding protein-2 (SREBP-2) mRNA, complete cds.   | 1.1     |
| 642    | M25710      | Human thyroid peroxidase (TPO) gene, exon 11.   | 1.1     |
| 643    | L12591      | Human alkaline phosphatase gene, 5' flanking region.  | 1.1     |
| 644    | L25616      | Homo sapiens kinectin mRNA, complete cds  | 1.1     |
| 645    | U32251      | Bos taurus clone 9 immunoglobulin lambda light chain variable region (Vlambda1b) mRNA, partial cds  | 1.1     |
| 646    | M97516      | Mouse alpha-2 adrenergic receptor gene, complete cds.   | 1.1     |
| 647    | AJ000060    | Mus musculus gene encoding lysosomal hyaluronidase,   | 1.1     |
| 648    | L07067      | Simian varicella virus tegument protein gene, complete cds; serine/threonine protein kinase genes, complete cds; membrane glycoprotein genes, complete cds's.   | 1.1     |
| 649    | L00619      | Mouse T-cell-specific tyrosine kinase (Itk) mRNA, complete  | 1.1     |
| 650    | M76981      | Glycine max vspA gene, complete cds.  | 1.1     |
| 651    | D87460      | Human mRNA for KIAA0270 gene, partial cds   | 1.1     |
| 652    | D17466      | Streptomyces setonii crtS gene for sigma factor, complete   | 1.1     |
| 653    | D89066      | Staphylococcus aureus DNA for DnaA, complete cds  | 1.1     |
| 654    | X96853      | P.persica mRNA for endo-beta-1,4-glucanase, pcel1   | 1.1     |
| 655    | NM_002248.1 | Homo sapiens potassium intermediate/small conductance calcium-activated channel, subfamily N, member 1 (KCNN1) mRNA > :: gb U69883 HSU69883 Human calcium-activated potassium channel hSK1 (SK) mRNA, | 1.1     |
| 656    | Z63493      | H.sapiens CpG island DNA genomic MseI fragment, clone 85c1, reverse read cpg85c1.rtl.a  | 1.1     |
| 657    | M21995      | Human coagulation factor XIII a subunit gene, exon 9.   | 1.1     |
| 658    | X60367      | Mouse CRBPI mRNA for cellular retinol binding protein I   | 1.1     |
| 659    | M63224      | Wheat germin 9f-3.8 gene, complete cds.   | 1.1     |
| 660    | M74515      | Mouse GA binding protein (GABP-alpha subunit) mRNA, complete cds.   | 1.1     |
| 661    | X52949.1    | G.intestinalis DNA for rRNA tandem repeat unit  | 1.1     |
| 662    | D11388      | Rattus norvegicus gene for ribosomal protein S15, exon 1, 2, 3, 4, complete cds   | 1.1     |
| 663    | U22302      | Human histo blood group ABO glycosyltransferase   | 1.1     |
| 664    | M38132      | S.pombe rad1 gene, complete cds.  | 1       |
| 665    | U07261      | Perissodus microlepis T51a mitochondrion NADH dehydrogenase subunit 2 gene, complete cds  | 1       |
| 666    | Z75244      | S.cerevisiae chromosome XV reading frame ORF YOR336w  | 1       |
| 667    | D63816      | Mouse DNA for glutamate transporter Slc1a3, exon 1  | 1       |
| 668    | U04699      | Euproctus platycephalus mitochondrion 16S rRNA gene, partial sequence.  | 1       |
| 669    | M19881      | P.falciparum knop protein (KP) gene, complete cds.  | 1       |
| 670    | X64310      | H.sapiens DNA for pu-py sequence on 11p13   | 1       |
| 671    | X56469      | Mouse HSA-A gene coding for heat stable antigen   | 1       |
| 672    | L76262      | Meloidogyne hapla mitochondrial COII gene, 3' end of cds; transfer RNA-His gene; 16S ribosomal RNA gene; ND3 gene, complete cds; cytochrome b (cytb) gene, 5' end of cds.                             | 1       |
| 673    | X52574      | Mouse mRNA from Mov10 locus   | 1       |
| 674    | Z11711      | H.sapiens gene for alpha-2 macroglobulin, exon 1  | 1       |
| 675    | M37240      | P.juncea N8 family repetitive sequence DNA.   | 1       |
| 676    | Z72947      | S.cerevisiae chromosome VII reading frame ORF YGR162w   | 1       |

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| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 677    | X58713      | N.crassa phr gene for photolyase   | 1       |
| 678    | M30502      | Human immunodeficiency virus type 2 (HIV-2), complete proviral genome.   | 1       |
| 679    | M23082      | Chicken embryo fibroblast tropomyosin mRNA, complete   | 1       |
| 680    | K03203      | Human PRH1 locus salivary proline-rich protein mRNA  | 1       |
| 681    | M86844      | Microtus chrotorrhinus tandem satellite array DNA sequence   | 1       |
| 682    | U55381      | Leishmania tropica P-glycoprotein E gene, complete cds   | 1       |
| 683    | D11388      | Rattus norvegicus gene for ribosomal protein S15, exon 1, 2, 3, 4, complete cds  | 1       |
| 684    | L43496      | Xenopus laevis ligase I (ligI) mRNA, complete cds  | 1       |
| 685    | X69103      | C.glutamicum csp2 gene   | 0.99    |
| 686    | M32883      | Alfalfa leghemoglobin gene, complete cds.  | 0.98    |
| 687    | M30502      | Human immunodeficiency virus type 2 (HIV-2), complete proviral genome.   | 0.98    |
| 688    | K02212      | Human alpha-1-antitrypsin gene (S variant), complete cds.  | 0.96    |
| 689    | Y09746      | H.oligactis mRNA for heat shock protein 70   | 0.96    |
| 690    | D12580      | Group II phytoplasma gene for 16S ribosomal RNA  | 0.95    |
| 691    | L10465      | Haematobia irritans (clone Horn.fly.3.7) mariner transposase pseudogene, partial cds.  | 0.95    |
| 692    | U22541      | Enterococcus hirae insertion sequence.   | 0.95    |
| 693    | U66261      | Caenorhabditis elegans multidrug resistance related protein 2 (mrp-2) mRNA, complete cds   | 0.93    |
| 694    | L05517      | Plasmodium chabaudi DNA sequence, exon 1.  | 0.91    |
| 695    | S40532      | NSCL-2=basic domain helix-loop-helix gene [mice, embryo, mRNA, 2230 nt]  | 0.91    |
| 696    | L48339      | Pseudomonas aureofaciens phzFABCD genes, complete cds's. > :: gb AR008980 AR008980 Sequence 11 from patent   | 0.65    |
| 697    | X77515      | R.rubrum nifJ gene   | 0.65    |
| 698    | X51394      | Xenopus mRNA for APEG protein, containing a highly repetitive amino acid sequence  | 0.65    |
| 699    | AF097906    | Rana catesbeiana myosin heavy chain (MHC-3) mRNA,  | 0.64    |
| 700    | X64724      | M.musculus NKR-P1 2 gene for natural killer cell receptor,   | 0.62    |
| 701    | NM_001462.1 | Homo sapiens formyl peptide receptor-like 1 (FPRL1) mRNA > :: gb M84562 HUMFPRL1A Human formyl peptide receptor-like receptor (FPRL1) mRNA, complete | 0.61    |
| 702    | AF110966.1  | HIV-1 isolate C-96BW04.10 country Botswana, complete   | 0.6     |
| 703    | Y10743      | S.scrofa mRNA for p120-PI3K protein  | 0.6     |
| 704    | U39669      | Xenopus laevis pyruvate dehydrogenase E1-beta subunit (PdhE1beta-2) mRNA, partial cds  | 0.59    |
| 705    | AJ004952    | Bos taurus mRNA for fibroblast growth factor receptor type   | 0.59    |
| 706    | AF125454    | Caenorhabditis elegans cosmid Y47G7C   | 0.59    |
| 707    | X59002      | Leukemogenic retrovirus T1223/B env gene   | 0.59    |
| 708    | Z73039      | S.cerevisiae chromosome VII reading frame ORF YGR254w  | 0.59    |
| 709    | Z28236      | S.cerevisiae chromosome XI reading frame ORF YKR011c   | 0.58    |
| 710    | U39669      | Xenopus laevis pyruvate dehydrogenase E1-beta subunit (PdhE1beta-2) mRNA, partial cds  | 0.58    |
| 711    | Z16651      | H. sapiens (D10S199) DNA segment containing  | 0.58    |
| 712    | X60163      | Human TSK39.1 telomere junction  | 0.58    |
| 713    | D10465      | Zymomonas mobilis invA gene for intracellular invertase E1, complete cds   | 0.58    |
| 714    | Z33280      | M.capricolum DNA for CONTIG MC376  | 0.57    |
| 715    | AF012899    | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds  | 0.57    |

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| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 716    | AB014572    | Homo sapiens mRNA for KIAA0672 protein, complete cds   | 0.57    |
| 717    | NM_002714.1 | Homo sapiens protein phosphatase 1, regulatory subunit 10 (PPP1R10) mRNA > :: emb Y13247 HSFB19 Homo sapiens   | 0.57    |
| 718    | M10630      | Bacteriophage U3 cleavage site for phage phi-X174 gene A   | 0.56    |
| 719    | Z55474      | H.sapiens CpG island DNA genomic MseI fragment, clone 42d3, reverse read cpg42d3.rt1a                          | 0.56    |
| 720    | U96697      | Drosophila melanogaster DPP2C1 (dpp2c1) mRNA,  | 0.56    |
| 721    | AC001048    | Homo sapiens (subclone 1 f12 from P1 H55) DNA  | 0.56    |
| 722    | M32245      | Human aromatase gene, 5' flank.  | 0.55    |
| 723    | AF051944    | Gallus gallus Xin mRNA, complete cds   | 0.55    |
| 724    | AF077539    | Caenorhabditis elegans cosmid T25D3  | 0.54    |
| 725    | U43841      | Entamoeba histolytica U6 small nuclear RNA gene, complete sequence   | 0.54    |
| 726    | NM_000551.1 | Homo sapiens von Hippel-Lindau syndrome (VHL) mRNA, and translated products                                    | 0.54    |
| 727    | U55215      | Cavia porcellus interleukin-5 receptor alpha precursor (gpIL-5ra) mRNA, complete cds                           | 0.53    |
| 728    | D16471      | Human mRNA, Xq terminal portion  | 0.53    |
| 729    | X76245      | S.cerevisiae NOP77 gene for essential nucleolar protein  | 0.52    |
| 730    | Z11993      | V.proteolyticus aminopeptidase   | 0.51    |
| 731    | L34620      | Eubacterium fossor 16S ribosomal RNA.  | 0.49    |
| 732    | U28757      | Sus scrofa lysozyme gene, complete cds   | 0.49    |
| 733    | U75187      | Arabidopsis thaliana germin-like protein (GLP1) mRNA,  | 0.49    |
| 734    | Z96514      | H.sapiens telomeric DNA sequence, clone 2PTEL005, read 2PTELOO005.seq  | 0.48    |
| 735    | AE000579.1  | Helicobacter pylori 26695 section 57 of 134 of the complete  | 0.48    |
| 736    | Y13852      | Drosophila diptera clone D3 inactive Bari-1 family   | 0.47    |
| 737    | X14036      | Tomato cab-7 gene for type II chlorophyll a/b-binding  | 0.47    |
| 738    | X84308      | H.vulgare mRNA for photosysteme I antenna protein  | 0.47    |
| 739    | S78378      | Oct-4 (t12 haplotype) [mice, Genomic, 1191 nt, segment 3   | 0.46    |
| 740    | NM_000254.1 | Homo sapiens 5-methyltetrahydrofolate-homocysteine methyltransferase synthase mRNA, complete cds               | 0.46    |
| 741    | L04161      | Plasmodium falciparum (clone Pfg377 [PfsXLX]) DNA sequence, complete cds                                       | 0.46    |
| 742    | X95887      | H.sapiens PLP gene, intron 1   | 0.45    |
| 743    | U38179      | Rattus norvegicus cyclic nucleotide phosphodiesterase (RNPDE3A) mRNA, complete cds.                            | 0.45    |
| 744    | U41833      | Macaca mulatta MHC class I antigen Mamu B*02 mRNA, complete cds  | 0.45    |
| 745    | L01794      | Plasmid pAD1 (from Enterococcus faecalis) replication-associate protein (repA, repB, and repC) genes, complete | 0.45    |
| 746    | U64573      | Human connexin43 gap junction protein (connexin43) gene, exon 1 and promoter region                            | 0.44    |
| 747    | X60832      | P.sativum gene (GS 3A) for glutamine synthase  | 0.44    |
| 748    | Z93997      | Unidentified bacterium DNA for 16S ribosomal RNA   | 0.44    |
| 749    | U32818      | Haemophilus influenzae Rd section 133 of 163 of the  | 0.44    |
| 750    | AF018161    | Sphaerozoum punctatum 16S-like ribosomal RNA gene, complete sequence   | 0.44    |
| 751    | D78156      | Human mRNA for rasGTPase activating protein, partial cds   | 0.44    |
| 752    | AB000173    | Porcine mRNA for endopeptidase 24.16, complete cds   | 0.44    |
| 753    | M36626      | Rat simple sequence DNA, clone 5.  | 0.44    |
| 754    | Y09922      | M.musculus flanking region of exon 1 of SEZ-6 gene including promoter sequence                                 | 0.44    |

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| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 755    | X13602      | <i>Caldocellum saccharolyticum</i> celB gene for cellobiohydrolase/endocellulase   | 0.44    |
| 756    | AF005664    | <i>Homo sapiens</i> properdin (PFC) gene, complete cds   | 0.44    |
| 757    | M63312      | Chinese hamster cAMP-dependent protein kinase, catalytic subunit-beta mRNA, complete cds.  | 0.44    |
| 758    | U43382      | Human Down Syndrome region of chromosome 21 DNA.   | 0.44    |
| 759    | U75187      | <i>Arabidopsis thaliana</i> germin-like protein (GLP1) mRNA,   | 0.44    |
| 760    | U21914      | Human duplicate spinal muscular atrophy mRNA, clone 5G7, partial cds.  | 0.43    |
| 761    | AF010537    | <i>Plasmodium falciparum</i> microsatellite TA3 sequence   | 0.43    |
| 762    | X05034      | Rat C2A gene for prostatic binding protein (PBP)   | 0.43    |
| 763    | D16579      | <i>Dictyostelium discoideum</i> mitochondrial DNA for NADH dehydrogenase subunits and cytochrome oxidase subunit                                     | 0.43    |
| 764    | M58155      | African swine fever virus multigene families 360 and 110.  | 0.43    |
| 765    | Z82587      | <i>R.prowazekii</i> genomic DNA fragment (clone A315R)   | 0.43    |
| 766    | X13011      | <i>Bacillus subtilis</i> DNA for glyceraldehyde-3-phosphate dehydrogenase (EC 1.2.1.12)  | 0.43    |
| 767    | X59952      | <i>T.thermophila</i> SB2040 micronuclear limited DNA element   | 0.43    |
| 768    | Z70730      | <i>L.lactis</i> gene for beta-phosphoglucomutase   | 0.43    |
| 769    | X94445      | <i>S.pombe</i> cw11 gene   | 0.43    |
| 770    | X63628      | <i>S.pombe</i> MFm2 gene   | 0.43    |
| 771    | X60049      | <i>O.berteriana</i> mitochondrial nad5 gene for NADH dehydrogenase subunit 5, exons d and e  | 0.43    |
| 772    | D45241      | Rat MHC class II gene (RT1.DOa), exon 2, 3, 4 and 5  | 0.43    |
| 773    | D83472.1    | <i>Bos taurus</i> gene for adrenodoxin reductase, exon 1, 2  | 0.43    |
| 774    | M34044      | Pig Na <sup>+</sup> /glucose cotransporter protein (SGLT1) mRNA, 3'  | 0.43    |
| 775    | U28488      | Human putative G protein-coupled receptor (AZ3B) mRNA, complete cds  | 0.43    |
| 776    | X89398      | <i>H.sapiens</i> ung gene for uracil DNA-glycosylase   | 0.43    |
| 777    | Z36879      | <i>F.pringlei</i> gdcSPA gene for P-protein of the glycine cleavage  | 0.43    |
| 778    | M73760      | Mouse serine proteinase, complete cds.   | 0.43    |
| 779    | Z36803      | <i>H.sapiens</i> (xs151) mRNA, 355bp   | 0.43    |
| 780    | M33940      | Human Val-tRNA and Lys-tRNA genes.   | 0.43    |
| 781    | M96159      | <i>Rattus norvegicus</i> adenylyl cyclase type V mRNA, complete  | 0.43    |
| 782    | X54134      | Human HPTP epsilon mRNA for protein tyrosine   | 0.43    |
| 783    | Z73039      | <i>S.cerevisiae</i> chromosome VII reading frame ORF YGR254w   | 0.43    |
| 784    | AB002312    | Human mRNA for KIAA0314 gene, partial cds  | 0.43    |
| 785    | AB002312    | Human mRNA for KIAA0314 gene, partial cds  | 0.43    |
| 786    | U88667      | Human ATP binding cassette transporter (ABCR) mRNA, complete cds   | 0.43    |
| 787    | U88667      | Human ATP binding cassette transporter (ABCR) mRNA, complete cds   | 0.43    |
| 788    | Z65552      | <i>H.sapiens</i> CpG island DNA genomic MseI fragment, clone 46b12, reverse read cpg46b12.rt1a   | 0.43    |
| 789    | X15599      | <i>Phanerochaete chrysosporium</i> LIP2 gene for lignin  | 0.43    |
| 790    | U22106      | <i>Drosophila melanogaster</i> dopamine D1-like receptor mRNA, partial cds.  | 0.43    |
| 791    | M13177      | Mouse transforming growth factor beta mRNA   | 0.43    |
| 792    | NM_002135.1 | <i>Homo sapiens</i> hormone receptor (growth factor-inducible nuclear protein N10) (HMR) mRNA > :: gb L13740 HUMTR3A Human TR3 orphan receptor mRNA, | 0.42    |
| 793    | U19617      | <i>Mus musculus</i> Ets-family transcription factor Elf-1 mRNA, complete cds   | 0.42    |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION | DESCRIPTION  | P VALUE |
|--------|-----------|--|---------|
| 794    | M60858    | Human nucleolin gene, complete cds.  | 0.42    |
| 795    | Z71179    | Caenorhabditis elegans cosmid F07D3, complete sequence [Caenorhabditis elegans]  | 0.42    |
| 796    | Z11804    | D.discoideum ras gene  | 0.42    |
| 797    | L07572    | Equus caballus (clone GEN2-9) germline Ig lambda chain gene, J4-C4 region, last 2 exons. > :: gb L07573 HRSIGLL  | 0.42    |
| 798    | L25637    | Xenopus laevis HNF-3beta gene, complete cds.   | 0.42    |
| 799    | AE000293  | Escherichia coli K-12 MG1655 section 183 of 400 of the complete genome   | 0.42    |
| 800    | Z55829    | H.sapiens CpG island DNA genomic MseI fragment, clone 68a3, forward read cpg68a3.ft1a  | 0.42    |
| 801    | Y11280    | A.vinelandii yoh-1, ibpB, cynR, leuC, leuD, leuB, asd, usg-1   | 0.42    |
| 802    | Y08925    | P.falciparum aarp3 gene, exon  | 0.42    |
| 803    | X89961    | H.sapiens DNA for MCS gene   | 0.42    |
| 804    | X82330    | A.hypogaea chi2.2 gene for chitinase (class II)  | 0.42    |
| 805    | D89655    | Rattus norvegicus mRNA for scavenger receptor class B, complete cds  | 0.42    |
| 806    | U70730    | Human SnoN2 mRNA, complete cds   | 0.42    |
| 807    | Y09922    | M.musculus flanking region of exon 1 of SEZ-6 gene including promoter sequence   | 0.42    |
| 808    | X57638    | Mouse mRNA for peroxisome proliferator activated receptor  | 0.42    |
| 809    | M33196    | Human Fc-epsilon-receptor gamma-chain gene, complete   | 0.42    |
| 810    | X13602    | Caldocellum saccharolyticum celB gene for cellobiohydrolase/endocellulase  | 0.42    |
| 811    | X13602    | Caldocellum saccharolyticum celB gene for cellobiohydrolase/endocellulase  | 0.42    |
| 812    | U23947    | Mycoplasma pulmonis putative lipoprotein (lipA), VsaB lipoprotein (vsaB), VsaC2 lipoprotein (vsaC2), VsaE2 lipoprotein (vsaE2), VsaD lipoprotein (vsaD) genes, partial cds, VsaA lipoprotein (vsaA) gene, complete cds, VsaC1 l... | 0.42    |
| 813    | U37312    | Sus scrofa clone ARO34B cytochrome P450 aromatase mRNA, complete cds   | 0.42    |
| 814    | U70998    | Phanerochaete chrysosporium manganese peroxidase isozyme 3 (mnp3) gene, complete cds   | 0.42    |
| 815    | U70998    | Phanerochaete chrysosporium manganese peroxidase isozyme 3 (mnp3) gene, complete cds   | 0.42    |
| 816    | X59379    | Mouse mRNA for amyloid beta precursor (protease nexin II)  | 0.42    |
| 817    | X54134    | Human HPTP epsilon mRNA for protein tyrosine   | 0.42    |
| 818    | Z32676    | H.sapiens x11 gene, promoter region  | 0.42    |
| 819    | U28938    | Rattus norvegicus protein tyrosine phosphatase D30 mRNA, complete cds  | 0.42    |
| 820    | L41867    | Drosophila extra sex combs gene, exon 1-4, complete cds.   | 0.42    |
| 821    | AF004659  | Andes virus G1 protein gene, partial cds   | 0.42    |
| 822    | U75187    | Arabidopsis thaliana germin-like protein (GLP1) mRNA,  | 0.42    |
| 823    | U27120    | Chlamydomonas reinhardtii ADP-ribosylation factor (ARF) mRNA, complete cds.  | 0.42    |
| 824    | U41759    | Chlamydia psittaci RecJ recombination protein gene, partial cds and ORF2, ORF4, glutamyl-tRNA synthetase, outer membrane protein 3 (omp3), outer membrane protein 2 (omp2), and hypothetical sulfur-rich protein (srp) genes, ...  | 0.41    |
| 825    | D12716    | Candida maltosa ALK4 (CYP52D1) gene for n-alkane inducible cytochrome P-450, complete cds  | 0.41    |



Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 826    | J01261      | P.vulgaris lectin gene, complete cds.  | 0.41    |
| 827    | K00131      | mouse b2 repeat sequence from clone mm61.  | 0.41    |
| 828    | AF000949    | Canis familiaris keratin (KRT9) gene, complete cds   | 0.41    |
| 829    | U67580      | Methanococcus jannaschii section 122 of 150 of the   | 0.41    |
| 830    | X98568      | H.sapiens type X collagen gene   | 0.41    |
| 831    | X13595      | Bean DNA for glycine-rich cell wall protein GRP 1.0  | 0.41    |
| 832    | Y13852      | Drosophila diptera clone D3 inactive Bari-1 family   | 0.41    |
| 833    | X53815      | Human G6PD gene for glucose-6-phosphate dehydrogenase,   | 0.41    |
|        |             | Bovine (clone p59K2) 3',5'-cyclic nucleotide phosphodiesterase (BTPDE1A1) mRNA, complete cds. > :: gb I30433 I30433 Sequence 16 from patent US 5580771 > :: gb I35677 I35677 Sequence 16 from patent US 5602019 > :: | 0.41    |
| 834    | L34069      | Human phospholipase C-beta-3 (PLCB3) gene, complete  | 0.41    |
| 835    | U26425      | Homo sapiens transforming growth factor-beta 1   | 0.41    |
| 836    | J04431      | gb I14074 I14074 Sequence 1 from patent US 5445941   | 0.41    |
| 837    | U32802      | Haemophilus influenzae Rd section 117 of 163 of the  | 0.41    |
| 838    | U24676      | Drosophila melanogaster twist (tsr) gene, complete cds   | 0.41    |
| 839    | U87793      | Bacillus thuringiensis kurstaki insecticidal delta-endotoxin CryIA(c) (cryIA(c)) gene, complete cds  | 0.41    |
| 840    | L06446      | Mus musculus domesticus insulin-like growth factor 2 receptor (Igf2r) gene, exon 2 and partial cds   | 0.41    |
| 841    | X06660      | Candida tropicalis POX9 gene for peroxisomal catalase (PXP-9) > :: dbj E01922 E01922 DNA encoding catalase of  | 0.41    |
| 842    | U05349      | Equine rotavirus glycoprotein VP7 mRNA, complete cds.  | 0.41    |
| 843    | L12058      | Clostridium sordellii 7-alpha-hydroxysteroid dehydrogenase gene, complete cds.   | 0.41    |
| 844    | X71327      | M. musculus mRNA for MRE-binding transcription factor  | 0.41    |
| 845    | AE000534.1  | Helicobacter pylori 26695 section 12 of 134 of the complete  | 0.41    |
| 846    | L33727      | Mouse 43kDa acetylcholine receptor-associated protein (Rapsn) gene, exons 3-8  | 0.41    |
| 847    | Y11270      | E.histolytica INO1 gene  | 0.41    |
| 848    | L10390      | Camptotheca acuminata 3-hydroxy-3-methylglutaryl coenzyme A reductase gene, complete cds.  | 0.41    |
| 849    | M34044      | Pig Na <sup>+</sup> /glucose cotransporter protein (SGLT1) mRNA, 3'  | 0.41    |
| 850    | M20543      | Human skeletal alpha-actin gene, complete cds.   | 0.41    |
| 851    | U97192      | Caenorhabditis elegans cosmid C01F4  | 0.41    |
| 852    | U65625      | Mus musculus strain BALB/c IgH C alpha gene, 3' regulatory region enhancer E   | 0.41    |
| 853    | X78344      | S.cerevisiae CAT8 gene   | 0.41    |
| 854    | Z26280      | H.sapiens isoform 1 gene for L-type calcium channel, exon  | 0.41    |
| 855    | Z23995      | H. sapiens (DIS469) DNA segment containing (CA) repeat; clone AFM280za5; single read   | 0.41    |
| 856    | X51394      | Xenopus mRNA for APEG protein, containing a highly repetitive amino acid sequence  | 0.41    |
| 857    | U72719      | Streptococcus agalactiae heat shock protein 70 cds   | 0.41    |
| 858    | M95673      | Saccharomyces cerevisiae pta1 gene, complete cds.  | 0.41    |
| 859    | U28938      | Rattus norvegicus protein tyrosine phosphatase D30 mRNA, complete cds  | 0.41    |
| 860    | NM_001072.1 | Homo sapiens UDP glycosyltransferase 1 phenol UDP-glucuronosyltransferase (UDPGT) mRNA, complete cds.  | 0.41    |
| 861    | Z72884      | S.cerevisiae chromosome VII reading frame ORF YGR099w  | 0.41    |
| 862    | X96883      | H.sapiens spcDNA, tetranucleoid and O-LTR like repeat,   | 0.4     |
| 863    | M14602      | Human myoglobin gene, exon 2.  | 0.4     |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION   | P VALUE |
|--------|-------------|---|---------|
| 864    | D00844      | Gallus gallus mRNA for virus activating protease, complete  | 0.4     |
| 865    | D49817      | Homo sapiens mRNA for 6-phosphofructo-2-kinase/fructose-2, 6-bisphosphatase, complete cds   | 0.4     |
| 866    | L78742      | Homo sapiens (subclone 10_b11 from P1 H16) DNA  | 0.4     |
| 867    | X51772      | Rat DNA for calpain II large subunit (EC 3.4.22.17) (exon   | 0.4     |
| 868    | U09473      | Luxilus chrysocephalus chrysocephalus Meramec R., Jefferson Co., MO, USA, mitochondrion 12S rRNA and 16S rRNA genes, partial sequence, and tRNA-Val gene,   | 0.4     |
| 869    | X52614      | Maize chloroplast rps15 gene for ribosomal protein S15  | 0.4     |
| 870    | U76524      | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds   | 0.4     |
| 871    | M30467      | D.discoideum uridine diphosphoglucose pyrophosphorylase (UDPGP1) gene, 5' end.  | 0.4     |
| 872    | NM_002248.1 | Homo sapiens potassium intermediate/small conductance calcium-activated channel, subfamily N, member 1 (KCNN1) mRNA > :: gb U69883 HSU69883 Human calcium-activated potassium channel hSK1 (SK) mRNA, | 0.4     |
| 873    | M81686      | Petunia hybrida Sx-protein  | 0.4     |
| 874    | S39508      | myelin P2 [mice, Genomic, 3694 nt]  | 0.4     |
| 875    | U82966      | Oryza sativa Ca2+-ATPase gene, complete cds   | 0.4     |
| 876    | X16323      | Human mRNA for hepatocyte growth factor (HGF)   | 0.4     |
| 877    | U31631      | Dictyostelium discoideum class II apurinic/aprimidinic(AP)-endonuclease (DdapeA) gene, complete cds   | 0.4     |
| 878    | X60753      | P.sylvestris BBS gene for bibenzyl synthase   | 0.4     |
| 879    | V00711      | Mus musculus mitochondrial genome > :: gb J01420 MUSMTCG Mouse mitochondrion, complete  | 0.4     |
| 880    | U66274      | Rattus norvegicus neuropeptide Y5 receptor (NPYR5) mRNA, complete cds   | 0.4     |
| 881    | X83673      | X.laevis SSB1 gene  | 0.4     |
| 882    | X14036      | Tomato cab-7 gene for type II chlorophyll a/b-binding   | 0.4     |
| 883    | U76524      | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds   | 0.4     |
| 884    | X64467      | H.sapiens ALAD gene for porphobilinogen synthase  | 0.4     |
| 885    | L81673      | Homo sapiens (subclone 1_f8 from P1 H49) DNA sequence   | 0.4     |
| 886    | L36887      | Saccharomyces cerevisiae mitochondrion transfer RNA-Leu, Gln, Lys, Arg, Gly, Asp, Ser2, Arg2, Ala, Ile, Tyr, Asn  | 0.4     |
| 887    | L24905      | Bombyx mori nuclear polyhedrosis virus hr5 gene.  | 0.4     |
| 888    | K00841      | human beta-tubulin pseudogene, clone 21-beta.   | 0.4     |
| 889    | K02819      | Rabbit MHC RLA region class I 19-1 gene, complete cds.  | 0.4     |
| 890    | L24905      | Bombyx mori nuclear polyhedrosis virus hr5 gene.  | 0.4     |
| 891    | X69491      | G.gallus gene for gonadotrophin releasing hormone I   | 0.4     |
| 892    | X95887      | H.sapiens PLP gene, intron 1  | 0.4     |
| 893    | Z96576      | H.sapiens telomeric DNA sequence, clone 3PTEL001, read 3PTELOO001.seq   | 0.4     |
| 894    | Z16503      | H. sapiens (DIS196) DNA segment containing (CA) repeat; clone AFM063xg9; single read  | 0.4     |
| 895    | M20572      | Mouse interleukin 6 (IL-6) gene, complete cds.  | 0.4     |
| 896    | AF022372    | Candida albicans proteinase (Kex2) gene, complete cds   | 0.4     |
| 897    | Z77964      | H.sapiens flow-sorted chromosome 6 HindIII fragment,  | 0.4     |
| 898    | Z58874      | H.sapiens CpG island DNA genomic MseI fragment, clone 110g9, reverse read cpg110g9.rt1a   | 0.4     |
| 899    | X53422      | D. grimshawi s18, s15, s19 and s16 chorion protein genes  | 0.4     |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION   | P VALUE |
|--------|-------------|---|---------|
| 900    | NM_002435.1 | Homo sapiens mannose phosphate isomerase (MPI) mRNA > :: emb X76057 HSRPMI H.sapiens PMI1 mRNA for phosphomannose isomerase   | 0.4     |
| 901    | X05914      | D. virilis mitochondrial DNA for origin of replication, small mitochondrial ribosomal RNA, transfer tRNAs tRNA-fMet, tRNA-Gln and tRNA-Ile  | 0.4     |
| 902    | Z95179      | G.gallus microsatellite DNA (LEI0290 (= EC11EO7))   | 0.4     |
| 903    | X65627      | M.musculus mRNA TNZ2 for p68 RNA helicase   | 0.4     |
| 904    | U87940      | Salmonella typhimurium hydroxyethyl thiazole kinase (thiM) and HMP-P kinase (thiD) genes, complete cds  | 0.4     |
| 905    | U15450      | Sus scrofa clone pvg13 Ig heavy chain variable VDJ region mRNA, partial cds.  | 0.4     |
| 906    | M27902      | Rat cardiac specific sodium channel alpha-subunit mRNA, complete cds.   | 0.4     |
| 907    | U22893      | Rattus norvegicus muscle Y-box protein YB2 mRNA,  | 0.4     |
| 908    | NM_003632.1 | Homo sapiens neurexin 4 (contactin associated protein) (NRXN4) mRNA > :: gb U87223 HSU87223 Homo sapiens contactin associated protein (Caspr) mRNA, complete cds  | 0.4     |
| 909    | AF001504    | Homo sapiens myasthenia gravis autoantigen gravin mRNA, partial cds   | 0.4     |
| 910    | AB002384    | Human mRNA for KIAA0386 gene, complete cds  | 0.4     |
| 911    | U40145      | Mus musculus Mdm2 (Mdm2) gene, complete cds.  | 0.4     |
| 912    | NM_002714.1 | Homo sapiens protein phosphatase 1, regulatory subunit 10 (PPP1R10) mRNA > :: emb Y13247 HSFB19 Homo sapiens  | 0.4     |
| 913    | Y09762      | Mokola virus genes encoding nucleoprotein, phosphoprotein, matrice protein, glycoprotein and  | 0.4     |
| 914    | U75187      | Arabidopsis thaliana germin-like protein (GLP1) mRNA,   | 0.4     |
| 915    | Z82448      | R.prowazekii genomic DNA fragment (clone A503F)   | 0.39    |
| 916    | Z50864      | L.delbrueckii sp. lactis plasmid pWS58 DNA, complete  | 0.39    |
| 917    | K03196      | Human interferon-beta-3 gene.   | 0.39    |
| 918    | U66614      | Marinococcus halophilus L-2,4-diaminobutyric acid acetyl transferase (ectA) gene, L-2,4-diaminobutyric acid transaminase (ectB) gene, ectoine synthase (ectC) gene, putative transposase orfA gene, complete cds, and putative... | 0.39    |
| 919    | L48522      | Homo sapiens tuberlin (TSC2) gene, exons 6, 7, and 8  | 0.39    |
| 920    | Z68133      | Caenorhabditis elegans cosmid F23C11, complete sequence [Caenorhabditis elegans]  | 0.39    |
| 921    | U60973      | Candida albicans oligopeptide transporter (OPT1) gene,  | 0.39    |
| 922    | L31398      | Mus musculus dynamin (UDnm) mRNA, complete cds.   | 0.39    |
| 923    | X15966      | Rabbit DNA for L1Oc4 repeat   | 0.39    |
| 924    | Z95122      | Caenorhabditis elegans cosmid VZC374L, complete sequence [Caenorhabditis elegans]   | 0.39    |
| 925    | X55036      | M.musculus long mosaic repeated sequence (LMRS)   | 0.39    |
| 926    | U35640      | Arabidopsis thaliana thioredoxin h (TRX3) gene, complete  | 0.39    |
| 927    | V00094      | Fibroin gene intervening sequence from Bombyx mori (silk moth), with 5' flank and partial coding sequence   | 0.39    |
| 928    | U47687      | Streptococcus pneumoniae immunoglobulin A1 protease (iga) gene, complete cds  | 0.39    |
| 929    | Z93381      | Caenorhabditis elegans cosmid F28G4, complete sequence [Caenorhabditis elegans]   | 0.39    |
| 930    | U76524      | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds   | 0.39    |
| 931    | X71600      | H.sapiens DNA sequence of polymorphic pentanucleotide   | 0.39    |

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| SEQ ID | ACCESSION   | DESCRIPTION   | P VALUE |
|--------|-------------|---|---------|
| 932    | NM_000958.1 | Homo sapiens prostaglandin E receptor 4 sapiens prostaglandin E2 receptor EP2 subtype mRNA, complete cds. > :: gb I36298 I36298 Sequence 1 from patent US | 0.39    |
| 933    | Y07648      | A.thaliana nit2 gene, nit1 gene and nit3 gene   | 0.39    |
| 934    | Y13852      | Drosophila diptera clone D3 inactive Bari-1 family  | 0.39    |
| 935    | M57851      | Human S protein-alpha (PS-alpha) gene, exon 13.   | 0.39    |
| 936    | X52270      | Maize chloroplast 3'part of rpoC2 gene, rps2 gene, atpI gene and 5'part of atpH gene  | 0.39    |
| 937    | U50948      | Rattus norvegicus taste bud receptor protein TB 567 (TB 567) gene, complete cds   | 0.39    |
| 938    | X60435      | H.sapiens gene PACAP for pituitary adenylate cyclase activating polypeptide   | 0.39    |
| 939    | U12972      | Tetrahymena thermophila CU428.1VII micronuclear R   | 0.39    |
| 940    | X54709      | Kluyveromyces lactis BiP gene for BiP/GRP78   | 0.39    |
| 941    | Z73360      | Human DNA sequence from cosmid 92M18, BRCA2 gene region chromosome 13q12-13   | 0.39    |
| 942    | L13841      | Plasmid pX01 (from Bacillus anthracis UM23-1) trans-acting positive regulator (Atx A) gene, complete cds.   | 0.39    |
| 943    | Z72554      | S.cerevisiae chromosome VII reading frame ORF YGL032c   | 0.39    |
| 944    | L24905      | Bombyx mori nuclear polyhedrosis virus hr5 gene.  | 0.39    |
| 945    | Z11486      | Pinus strobus L. mRNA for pine globulin-1   | 0.39    |
| 946    | X70675      | M.musculus gene for MERANTES protein  | 0.39    |
| 947    | AF010537    | Plasmodium falciparum microsatellite TA3 sequence   | 0.39    |
| 948    | X78219      | D.melanogaster (Barton) SED5 mRNA   | 0.39    |
| 949    | D42055      | Human mRNA for KIAA0093 gene, partial cds   | 0.39    |
| 950    | Z30698      | Rinderpest virus (RBOK) RNA for RNA polymerase (L)  | 0.39    |
| 951    | M64715      | Plasmodium falciparum DNA polymerase-delta gene,  | 0.39    |
| 952    | Z32774      | H.sapiens gene for N-methyl-D-aspartate receptor R1 exons   | 0.39    |
| 953    | U70998      | Phanerochaete chrysosporium manganese peroxidase isozyme 3 (mnp3) gene, complete cds  | 0.39    |
| 954    | Z72884      | S.cerevisiae chromosome VII reading frame ORF YGR099w   | 0.39    |
| 955    | S78378      | Oct-4 (t12 haplotype) [mice, Genomic, 1191 nt, segment 3  | 0.39    |
| 956    | U78098      | Pyrococcus furiosus ribonucleotide reductase (rnr) gene, complete cds   | 0.38    |
| 957    | U78857      | Rattus norvegicus protein serine/threonine kinase CPG16 (cpg16) mRNA, complete cds  | 0.38    |
| 958    | Z54096      | S.pombe chromosome I cosmid c13A11  | 0.38    |
| 959    | Z72778      | S.cerevisiae chromosome VII reading frame ORF YGL256w   | 0.38    |
| 960    | D14718      | Human chromosomal protein HMG1 related gene   | 0.38    |
| 961    | U09138      | Mus musculus peroxisome proliferator activated protein-gamma-2 mRNA, complete cds.  | 0.38    |
| 962    | U32818      | Haemophilus influenzae Rd section 133 of 163 of the   | 0.38    |
| 963    | X89398      | H.sapiens ung gene for uracil DNA-glycosylase   | 0.38    |
| 964    | X69440      | N.tabacum NTP303 gene   | 0.38    |
| 965    | U62660      | Toxoplasma gondii micronemal protein MIC2, complete cds   | 0.38    |
| 966    | AE000042    | Mycoplasma pneumoniae section 42 of 63 of the complete  | 0.38    |
| 967    | V00190      | Gene for small nuclear RNA D2 of slime mold (D.   | 0.38    |
| 968    | X98568      | H.sapiens type X collagen gene  | 0.38    |
| 969    | U54776      | Human NTT gene, L1, Alu, and MER 38 repeat regions  | 0.38    |
| 970    | Z72888      | S.cerevisiae chromosome VII reading frame ORF YGR103w   | 0.38    |
| 971    | U97128      | Plasmodium falciparum HMG-like protein Pf16 (Pf16) mRNA, partial cds  | 0.38    |
| 972    | J02846      | Human tissue factor gene, complete cds.   | 0.38    |

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| SEQ ID | ACCESSION | DESCRIPTION   | P VALUE |
|--------|-----------|---|---------|
| 973    | J00803    | Sheep corticotropin-releasing factor (CRF) mRNA, complete   | 0.38    |
| 974    | X04310    | Rat thymocyte mRNA for 37K chain of CD8 antigen   | 0.38    |
| 975    | Y13129    | Rickettsia akari fnt gene, partial  | 0.38    |
| 976    | X95099    | C.albicans mRNA for neutral trehalase   | 0.38    |
| 977    | D83948    | Rat adult liver mRNA for S1-1 protein, complete cds   | 0.38    |
| 978    | Z84722    | Human DNA sequence from cosmid GG4 from a contig from the tip of the short arm of chromosome 16, spanning | 0.38    |
| 979    | U40604    | Listeria monocytogenes ClpC ATPase (mec) gene, complete   | 0.38    |
| 980    | Z92808    | Caenorhabditis elegans cosmid M04C3, complete sequence [Caenorhabditis elegans]                           | 0.38    |
| 981    | X91882    | Z.mays ZEMa gene  | 0.38    |
| 982    | M26394    | M.sexta larval cuticle protein (LCP-14) gene, exon 1.   | 0.38    |
| 983    | U32021    | Gossypium tomentosum 5S ribosomal RNA gene and non-transcribed spacer, clone 11                           | 0.38    |
| 984    | X54061    | D. melanogaster mRNA coding for a 205K microtubule-associated protein (MAP)                               | 0.38    |
| 985    | X14612    | Chicken c-myb proto-oncogene 5' region exons 1-5  | 0.38    |
| 986    | U12594    | Sus scrofa immunoglobulin alpha heavy chain constant region (IgA C alpha) mRNA, partial cds.              | 0.38    |
| 987    | U64841    | Caenorhabditis elegans cosmid ZC142.  | 0.38    |
| 988    | M93148    | Mouse homeobox protein (Hox-1.11) gene, complete cds.   | 0.38    |
| 989    | X14049    | Canis familiaris RDC4 mRNA for G protein-coupled  | 0.38    |
| 990    | X94616    | M.musculus mRNA for glycogen synthase   | 0.38    |
| 991    | S78378    | Oct-4 (t12 haplotype) [mice, Genomic, 1191 nt, segment 3  | 0.38    |
| 992    | D50091    | Drosophila ezoana G-3-P dehydrogenase   | 0.37    |
| 993    | Y11874    | M.musculus uPA gene, promoter sequence  | 0.37    |
| 994    | X63628    | S.pombe MFm2 gene   | 0.37    |
| 995    | Z69652    | Human DNA sequence from cosmid L75B9, Huntington's Disease Region, chromosome 4p16.3                      | 0.37    |
| 996    | Y08305    | L.esculentum lap17.1a gene, promoter region and CDS   | 0.37    |
| 997    | U64453    | Human ELK1 pseudogene (ELK2) and immunoglobulin heavy chain gamma pseudogene (IGHGP)                      | 0.37    |
| 998    | X82286    | H.sapiens Fas, Apo-1 gene (exon IX)   | 0.37    |
| 999    | Z48231    | E.coli IncQ plasmid pIE639 sat3 gene and aphA gene  | 0.37    |
| 1000   | L36679    | Amycolatopsis methanolica plasmid pMEA300 stf gene,   | 0.37    |
| 1001   | X95275    | P.falciparum complete gene map of plastid-like DNA  | 0.37    |
| 1002   | Z58565    | H.sapiens CpG island DNA genomic MseI fragment, clone 44a5, forward read cpg44a5.ft1a                     | 0.37    |
| 1003   | L14625    | Arcobacter skirrowi 16S ribosomal RNA.  | 0.37    |
| 1004   | U72236    | Dictyostelium discoideum ModA (modA) gene, complete   | 0.37    |
| 1005   | X73940    | B.taurus microsatellite DNA INRA190   | 0.37    |
| 1006   | L06092    | Mesocricetus auratus acidic fibroblast growth factor gene, 5' flank and non-coding exon 1.                | 0.37    |
| 1007   | X98918    | Human rotavirus gene encoding outer capsid glycoprotein   | 0.37    |
| 1008   | X14448    | Human GLA gene for alpha-D-galactosidase A (EC  | 0.37    |
| 1009   | AF003533  | Homo sapiens cytosolic phagocyte oxidase protein  | 0.37    |
| 1010   | X67711    | O.sativa hsp70 gene for heat shock protein 70   | 0.37    |
| 1011   | Z33465    | B.occidentalis gene for 18S rRNA  | 0.37    |
| 1012   | Z12652    | R.norvegicus upstream of gene for catechol  | 0.37    |
| 1013   | U45934    | Human papillomavirus type 68, isolate IS362, major capsid protein L1 (L1) gene, partial cds               | 0.37    |
| 1014   | U17084    | Human neurofibromin (NF1) gene, promoter region and   | 0.37    |
| 1015   | X95668    | B.burgdorferi gidA, gidB and moxR genes   | 0.37    |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 1016   | X58541      | Mink mRNA for plasminogen activator inhibitor type 1   | 0.37    |
| 1017   | U48706      | Dictyostelium discoideum small aggregate formation   | 0.37    |
| 1018   | M77176      | H.sapiens carbonic anhydrase II (CAII) gene, exons 1 and 2.  | 0.37    |
| 1019   | Z72888      | S.cerevisiae chromosome VII reading frame ORF YGR103w  | 0.37    |
| 1020   | Y13234      | Chironomus tentans mRNA for chitinase, 1695 bp   | 0.37    |
| 1021   | AF004166    | Lycopersicon pennellii 2-isopropylmalate synthase (lp-ipmsb) mRNA, complete cds  | 0.37    |
| 1022   | D85240      | Aspergillus niger DNA for isopullulanase precursor,  | 0.37    |
| 1023   | Y00684      | Rabbit mRNA for gamma-subunit of phosphorylase kinase (EC 2.7.1.38)  | 0.37    |
| 1024   | X54016      | D.discoideum mRNA for 24 kDa protein, homologous to C-terminal repeat sequence of rhodopsin and synaptophysin  | 0.37    |
| 1025   | M22015      | Influenza virus type C (C/JJ/50) nonstructural   | 0.37    |
| 1026   | M62798      | F.ferrugineum 16S ribosomal RNA.   | 0.37    |
| 1027   | X76652      | M.musculus mRNA for 3f8  | 0.37    |
| 1028   | X56047      | P. chrysosporium trpC gene for trifunctional polypeptide   | 0.37    |
| 1029   | Z74896      | S.cerevisiae chromosome XV reading frame ORF YOL154w   | 0.37    |
| 1030   | U20238      | Mus musculus GTPase-activating protein GAPIII mRNA, complete cds.  | 0.37    |
| 1031   | Z54240      | L.plantarum pyrimidine biosynthetic operon genes   | 0.36    |
| 1032   | X54742      | Nicotiana plumbaginifolia beta-(1,3)-glucanase gene for a vacuolar isoform   | 0.36    |
| 1033   | AF001415    | Arabidopsis thaliana 14-3-3-like protein GF14 epsilon (GRF5) gene, complete cds  | 0.36    |
| 1034   | X77801      | S.beecheyi genomic DNA with direct repeats and integrated Hepatitis B virus  | 0.36    |
| 1035   | Z84431      | D.ligulata internal transcribed spacer 2 DNA   | 0.36    |
| 1036   | X60753      | P.sylvestris BBS gene for bibenzyl synthase  | 0.36    |
| 1037   | D28503      | Clostridium josui hemaA, hemC, hemD and hemB genes of porphyrin biosynthesis   | 0.36    |
| 1038   | X66131      | R.americana mRNA for elongation factor 1-alpha   | 0.36    |
| 1039   | X69601      | B.burgdorferi p93 gene (partial)   | 0.36    |
| 1040   | M83758      | Mytilus edulis mitochondrial cytochrome oxidase subunit II (COII) gene, 3' end and NADH dehydrogenase subunit 1  | 0.36    |
| 1041   | Z27392      | G.raimondii (D61 ) copia-like reverse transcriptase  | 0.36    |
| 1042   | U28832      | Infectious laryngotracheitis virus US10, US2, protein kinase, UL47, glycoprotein G, ORF5, glycoprotein D, glycoprotein I, glycoprotein E, ORF9 genes, complete cds | 0.36    |
| 1043   | AB002384    | Human mRNA for KIAA0386 gene, complete cds   | 0.36    |
| 1044   | M22345      | Mouse endogenous provirus gag, pol, and env region DNA.  | 0.36    |
| 1045   | U16850      | Human calmodulin-I (CALM1) mRNA, 3'UTR, partial  | 0.36    |
| 1046   | M19197      | Dengue virus type 2 (S1 vaccine strain), complete genome.  | 0.36    |
| 1047   | Z49535      | S.cerevisiae chromosome X reading frame ORF YJR035w  | 0.36    |
| 1048   | Z74369      | S.cerevisiae chromosome IV reading frame ORF YDR073w   | 0.36    |
| 1049   | S78378      | Oct-4 (t12 haplotype) [mice, Genomic, 1191 nt, segment 3   | 0.36    |
| 1050   | X60686      | B.taurus mRNA for transglutaminase   | 0.36    |
| 1051   | NM_001670.1 | Homo sapiens armadillo repeat gene deleted in velo-cardio-facial syndrome (ARVCF) mRNA > :: gb U51269 HSU51269 Human armadillo repeat protein                      | 0.35    |
| 1052   | X63149      | Y.enterocolitica ampC and ampR genes for beta-lactamase and AmpR regulatory protein  | 0.35    |
| 1053   | L25779      | Kluyveromyces lactis (HAP3) gene, complete cds,  | 0.35    |



Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION | DESCRIPTION  | P VALUE |
|--------|-----------|--|---------|
| 1054   | U77368    | <i>Listeria monocytogenes</i> internalin (inlC2), inlD, and inlE genes, complete cds                                       | 0.35    |
| 1055   | M62750    | <i>Homo sapiens</i> intergenic locus pYNZ32 variable number tandem repeat (VNTR) sequence associated with Huntington       | 0.35    |
| 1056   | K03073    | Slime mold ( <i>D.discoideum</i> ) mRNA complementary to the right inverted terminal repeat of DIRS-1, clone pLZ12.        | 0.35    |
| 1057   | U78025    | <i>Sus scrofa</i> microsatellite S0399 sequence  | 0.35    |
| 1058   | M17478    | <i>Drosophila melanogaster</i> transformer (tra) gene, complete cds, and non-sex-specific transformer processed pseudogene | 0.35    |
| 1059   | L09708    | <i>Homo sapiens</i> complement component 2 (C2) gene allele b, exons 10 through 18 and complete cds                        | 0.35    |
| 1060   | Z16708    | <i>H. sapiens</i> (D6S275) DNA segment containing  | 0.35    |
| 1061   | M74201    | Rabbit cytochrome P450IIC4 (CYP2C4) gene, exons 2 and  | 0.35    |
| 1062   | U63634    | <i>Mesembryanthemum crystallinum</i> inositol methyltransferase (Imt1) gene, complete cds                                  | 0.35    |
| 1063   | U73126    | <i>Oryctolagus cuniculus</i> calcitonin receptor isoform mRNA, complete cds  | 0.35    |
| 1064   | X52614    | Maize chloroplast rps15 gene for ribosomal protein S15   | 0.35    |
| 1065   | X52614    | Maize chloroplast rps15 gene for ribosomal protein S15   | 0.35    |
| 1066   | X57520    | <i>L.micdadei</i> DNA for gro ELS operon   | 0.35    |
| 1067   | D38574    | <i>Pyrodictium occultum</i> polB gene for DNA polymerase II (family B) (alpha-like DNA polymerase), complete cds           | 0.35    |
| 1068   | Z47075    | <i>Caenorhabditis elegans</i> cosmid E02H1, complete sequence [Caenorhabditis elegans]                                     | 0.35    |
| 1069   | Y10686    | <i>C.capreolus</i> DNA, tandem repeat region   | 0.35    |
| 1070   | U17771    | <i>Blaberus giganteus</i> mitochondrion 16S ribosomal RNA, partial sequence  | 0.35    |
| 1071   | U12186    | <i>Oryctolagus cuniculus</i> sodium/dicarboxylate cotransporter mRNA, partial cds.   | 0.35    |
| 1072   | L25677    | <i>Schizosaccharomyces pombe</i> cdc42+ (Cdc42p) gene,   | 0.35    |
| 1073   | X63628    | <i>S.pombe</i> MFm2 gene   | 0.35    |
| 1074   | D67071    | Rat gene for regucalcin, exon1 (non-coding exon)   | 0.35    |
| 1075   | X93218    | <i>Impatiens necrotic spot virus</i> L gene  | 0.35    |
| 1076   | U16301    | Human lysyl hydroxylase (PLOD) gene, intron 15, complete   | 0.35    |
| 1077   | M37277    | Human Ig germline H-chain D-region genes, partial cds.   | 0.35    |
| 1078   | X14448    | Human GLA gene for alpha-D-galactosidase A (EC   | 0.34    |
| 1079   | X79930    | <i>O.gibsoni</i> Tbb gene  | 0.34    |
| 1080   | Z37352    | <i>H.sapiens</i> rearranged immunoglobulin lambda light chain V-region (VI-3)  | 0.34    |
| 1081   | X59013    | Rat mRNA for trypsin V b-form  | 0.34    |
| 1082   | X90761    | <i>Homo sapiens</i> hHa2 gene  | 0.33    |
| 1083   | L23498    | Bovine microsatellite repeats  | 0.33    |
| 1084   | Z18361    | <i>O.aries</i> trichohyalin  | 0.33    |
| 1085   | L18785    | <i>Plasmodium falciparum</i> DNA polymerase alpha (Pol alpha)  | 0.33    |
| 1086   | X96685    | <i>B.burgdorferi</i> cell division genes   | 0.33    |
| 1087   | M58509    | Human adrenodoxin reductase gene, exons 3 to 12.   | 0.33    |
| 1088   | X70809    | <i>C.reptans</i> gene for 18S ribosomal RNA  | 0.32    |
| 1089   | D38116    | Pygmy chimpanzee mitochondrial DNA, complete sequence  | 0.32    |
| 1090   | U00310    | Human immunodeficiency virus type 1 isolate 583-78 envelope glycoprotein, V3 region (env) gene, partial cds.               | 0.31    |
| 1091   | L35670    | <i>Homo sapiens</i> (subclone H8 10_g5 from P1 35 H5 C8) DNA   | 0.3     |
| 1092   | M63960    | Human protein phosphatase-1 catalytic subunit mRNA,  | 0.3     |
| 1093   | Z50747    | <i>C.psittaci</i> DNA for kdsA, dsk1 and dsk2 genes  | 0.22    |



Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 1094   | M80215      | Streptococcus pneumoniae uvs402 protein gene, complete   | 0.22    |
| 1095   | M98776      | Human keratin 1 gene, complete cds   | 0.22    |
| 1096   | X66313      | H.sapiens GLUDP2 gene (exon 2)   | 0.21    |
| 1097   | AB001025    | Homo sapiens mRNA for brain ryanodine receptor, complete   | 0.21    |
| 1098   | AE000956    | Archaeoglobus fulgidus section 151 of 172 of the complete  | 0.21    |
| 1099   | Z46268      | Simian herpesvirus B DNA for glycoprotein G  | 0.21    |
| 1100   | X99403.1    | N.tabacum mRNA for defensin  | 0.21    |
| 1101   | U20335      | Drosophila pseudoobscura EP arrangement, BC p430#4 pAP5 clone alpha-amylase (amy1) gene, complete cds. > :: gb U20337 DPU20337 Drosophila pseudoobscura HI arrangement, Mex a-176x pAP9 clone alpha-amylase (amy1) | 0.21    |
| 1102   | X04077      | Potato patatin pseudogene (SB6B)   | 0.2     |
| 1103   | L11236      | Rattus rattus mRNA sequence.   | 0.2     |
| 1104   | X63547      | H.sapiens mRNA for tre oncogene (clone 213) > :: gb I76205 I76205 Sequence 9 from patent US 5691147  | 0.2     |
| 1105   | M69051      | Human liver glucokinase (ATP:D-hexose 6-phosphotransferase) mRNA, complete cds.  | 0.2     |
| 1106   | U14950      | Rattus norvegicus synapse-associated protein 97 mRNA, complete cds.  | 0.2     |
| 1107   | NM_002583.1 | Homo sapiens PRKC, apoptosis, WT1, regulator apoptosis response protein par-4 mRNA, complete cds   | 0.2     |
| 1108   | X66313      | H.sapiens GLUDP2 gene (exon 2)   | 0.2     |
| 1109   | U48485      | Human skeletal muscle ryanodine receptor gene  | 0.2     |
| 1110   | AF018116    | Dendroica pityophila cytochrome oxidase I protein, partial   | 0.2     |
| 1111   | X87108      | S.cerevisiae CKI3 gene   | 0.19    |
| 1112   | M55249      | E.coli retron Ec67 DNA encoding reverse transcriptase and Dam methylase functions.   | 0.19    |
| 1113   | L06898      | Actinomyces viscosus sialidase (nanH) gene, complete cds.  | 0.19    |
| 1114   | Y13631      | Clostridium botulinum P-21, P-47 ntnh, bonT genes  | 0.18    |
| 1115   | L24904      | Bombyx mori nuclear polyhedrosis virus hr4R gene.  | 0.18    |
| 1116   | M85049      | Drosophila melanogaster brahma protein mRNA, complete  | 0.18    |
| 1117   | X60777      | Shigella dysenteriae ipaBCD genes  | 0.17    |
| 1118   | L42936      | Pseudoxyscheila bipustulata mitochondrial large subunit 16S ribosomal RNA (16S rRNA) gene  | 0.17    |
| 1119   | AE001359    | Chlamydia trachomatis section 86 of 87 of the complete   | 0.17    |
| 1120   | K00899      | yeast(s.cerevisiae) histone 3 gene (h3) fused with e.coli lacZ gene and promoter, clone prm115.  | 0.17    |
| 1121   | M83994      | Staphylococcus aureus prolipoprotein signal peptidase (lsp) gene, complete cds.  | 0.17    |
| 1122   | Z28050      | S.cerevisiae chromosome XI reading frame ORF YKL050c   | 0.16    |
| 1123   | L23971      | Mus musculus fragile X mental retardation syndrome protein (Fmr1) (homologue) mRNA, complete cds.  | 0.16    |
| 1124   | Z98560      | S.pombe chromosome I cosmid c4C5   | 0.15    |
| 1125   | U89258      | Oxytricha fallax 'D,D35E' type transposase gene, partial cds   | 0.15    |
| 1126   | X62522      | R.norvegicus gene for CNS-myelin proteolipid protein (exon   | 0.15    |
| 1127   | X74504      | M.musculus T10 mRNA  | 0.15    |
| 1128   | D50931      | Human mRNA for KIAA0141 gene, complete cds   | 0.15    |
| 1129   | Z48951      | S.cerevisiae chromosome XVI cosmid 9723  | 0.15    |
| 1130   | L12395      | Brassica napus small GTP-binding protein (bra) mRNA,   | 0.15    |
| 1131   | U39367      | Blepharoneura manchesteri 16S ribosomal RNA gene, mitochondrial gene encoding mitochondrial RNA, partial   | 0.15    |
| 1132   | D50357      | Leptocarabus procerulus mitochondrial DNA for NADH dehydrogenase subunit 5, partial cds  | 0.15    |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION | DESCRIPTION   | P VALUE |
|--------|-----------|---|---------|
| 1133   | L35272    | Glycine max heat shock protein (SB100) mRNA, complete   | 0.15    |
| 1134   | U63641    | Legionella pneumophila rpoD operon LporfX, LpdnaG, and LprpoD genes, complete cds   | 0.15    |
| 1135   | X72186    | H.sapiens C6 gene, exons 10, 11 and 12  | 0.15    |
| 1136   | D45893    | Neurospora crassa acr-2 DNA, complete cds   | 0.15    |
| 1137   | L47106    | Neurospora crassa kinesin (NKIN) mRNA, complete cds   | 0.15    |
| 1138   | L04457    | Phytophthora megasperma mitochondrial ORF152, complete cds, cytochrome c oxidase subunit I (cox1) gene, complete cds, cytochrome c oxidase subunit II | 0.15    |
| 1139   | L04457    | Phytophthora megasperma mitochondrial ORF152, complete cds, cytochrome c oxidase subunit I (cox1) gene, complete cds, cytochrome c oxidase subunit II | 0.15    |
| 1140   | U12539    | Schizosaccharomyces pombe scd2 (scd2) gene, complete  | 0.15    |
| 1141   | U12539    | Schizosaccharomyces pombe scd2 (scd2) gene, complete  | 0.15    |
| 1142   | AB001901  | Homo sapiens PACE4 gene, exon 4-7   | 0.15    |
| 1143   | M97550    | Maize sucrose phosphate synthase mRNA, complete cds. > :: emb A17878.1 A17878 Synthetic SPS sequence >  | 0.15    |
| 1144   | AB001901  | Homo sapiens PACE4 gene, exon 4-7   | 0.15    |
| 1145   | X07438    | Human DNA for cellular retinol binding protein  | 0.14    |
| 1146   | Z57339    | H.sapiens CpG island DNA genomic MseI fragment, clone 171g3, reverse read cpg171g3.rtl.a  | 0.14    |
| 1147   | X05034    | Rat C2A gene for prostatic binding protein (PBP)  | 0.14    |
| 1148   | U55712    | Human ataxia-telangiectasia (ATM) gene, exon 12   | 0.14    |
| 1149   | M20273    | Human hepatitis virus type A RNA, complete genome.  | 0.14    |
| 1150   | J01764    | Plasmid pT181, complete genome.   | 0.14    |
| 1151   | X61109    | G.gorilla beta-globin gene  | 0.14    |
| 1152   | Z30587    | S.hominis (972) genes for potential ABC transporter and potential membrane spanning protein   | 0.14    |
| 1153   | U60400    | Babanki virus polymerase nsP4 gene, partial cds virus polymerase nsP4 gene, partial cds   | 0.14    |
| 1154   | U67478    | Methanococcus jannaschii section 20 of 150 of the complete  | 0.14    |
| 1155   | Z71641    | S.cerevisiae chromosome XIV reading frame ORF   | 0.14    |
| 1156   | X53522    | M.musculus VL1 gene (1G-5)  | 0.14    |
| 1157   | Z21753    | O.tanganicae mitochondrion genes for tRNA-Thr   | 0.14    |
| 1158   | L33841    | Carthamus tinctorius glycerol-3-phosphate acyltransferase mRNA, complete cds.   | 0.14    |
| 1159   | AF003277  | Glossiphonia complanata cytochrome c oxidase subunit I (COI) gene, partial cds  | 0.14    |
| 1160   | U89035    | Oxytricha fallax transposon TBE1, insertion fal6, 42 kDa transposase gene, partial cds  | 0.14    |
| 1161   | L36923    | Streptococcus pneumoniae beta-N-acetylhexosaminidase (strH) gene, complete cds  | 0.14    |
| 1162   | U64830    | Dictyostelium discoideum AX2 protein tyrosine kinase gene, complete cds.  | 0.14    |
| 1163   | U43082    | Zea mays T cytoplasm male sterility restorer factor 2 (rf2) mRNA, complete cds  | 0.14    |
| 1164   | Z26492    | T.repens TrMT1A mRNA for metallothionein-like protein   | 0.14    |
| 1165   | X83683    | V.sativa mRNA for early nodulin 40  | 0.14    |
| 1166   | D63861    | Homo sapiens DNA for cyclophilin 40, complete cds   | 0.14    |
| 1167   | D86594    | Japanese jack bean clone CgHMGY1 DNA for high mobility group protein, complete cds  | 0.14    |
| 1168   | Z18859    | H.sapiens gene for cone transducin alpha subunit  | 0.14    |

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| SEQ ID | ACCESSION   | DESCRIPTION   | P VALUE |
|--------|-------------|---|---------|
| 1169   | L28038      | Trypanosoma rangeli kinetoplast DNA sequence with conserved sequence blocks   | 0.14    |
| 1170   | U72057      | Mus musculus chloride channel regulator (Ic1n) gene, exon 1   | 0.14    |
| 1171   | AF003836    | Mesocricetus auratus isopentenyl diphosphate:dimethylallyl diphosphate isomerase mRNA, complete cds   | 0.14    |
| 1172   | X78422      | A.thaliana HYP1 mRNA  | 0.14    |
| 1173   | U28042      | Human DEAD box RNA helicase-like protein mRNA,  | 0.14    |
| 1174   | U01070      | Mycoplasma flocculare Ms42 5S rRNA gene.  | 0.14    |
| 1175   | U54776      | Human NTT gene, L1, Alu, and MER 38 repeat regions  | 0.14    |
| 1176   | U40375      | Mus musculus Supt6h mRNA, complete cds  | 0.14    |
| 1177   | X71083      | G.max gene for coproporphyrinogen oxidase   | 0.14    |
| 1178   | D86253      | Human MHC (HLA) DRB intron 1 DNA, partial sequence  | 0.14    |
| 1179   | M55002      | Synechococcus sp. 6-phosphogluconate dehydrogenase gene, complete cds.  | 0.14    |
| 1180   | X14036      | Tomato cab-7 gene for type II chlorophyll a/b-binding   | 0.14    |
| 1181   | L35272      | Glycine max heat shock protein (SB100) mRNA, complete   | 0.14    |
| 1182   | D50931      | Human mRNA for KIAA0141 gene, complete cds  | 0.14    |
| 1183   | L35272      | Glycine max heat shock protein (SB100) mRNA, complete   | 0.14    |
| 1184   | X05034      | Rat C2A gene for prostatic binding protein (PBP)  | 0.14    |
| 1185   | X89553      | Echovirus 26 DNA for VP2 capsid protein gene  | 0.14    |
| 1186   | Z77656      | Caenorhabditis elegans cosmid F07B10, complete sequence [Caenorhabditis elegans]  | 0.14    |
| 1187   | Z84739      | H.sapiens flow-sorted chromosome 6 HindIII fragment,  | 0.14    |
| 1188   | L34219      | Homo sapiens retinaldehyde-binding protein (CRALBP) gene, complete cds.   | 0.14    |
| 1189   | M30168      | D.melanogaster nested repetitive sequences F and G,   | 0.14    |
| 1190   | U07260      | Perissodus microlepis T32a mitochondrion NADH dehydrogenase subunit 2 gene, complete cds  | 0.14    |
| 1191   | X15308      | H.sapiens NF-H gene, exon 3   | 0.14    |
| 1192   | J02763      | Human calcyclin gene, complete cds.   | 0.14    |
| 1193   | M76175      | Mouse elongation factor 2 pseudogene, complete cds.   | 0.14    |
| 1194   | X67735      | M.musculus mas gene for Mas proto-oncogene  | 0.14    |
| 1195   | NM_002816.1 | Homo sapiens proteasome (prosome, macropain) 26S subunit, non-ATPase, 12 (PSMD12) mRNA > :: dbj AB003103 AB003103 Homo sapiens mRNA for 26S                       | 0.14    |
| 1196   | U20754      | Felis catus chromosome D2 mtDNA tandem repeat Numt  | 0.14    |
| 1197   | L00727      | Human myotonin protein kinase (Mt-PK) gene, complete cds. > :: gb I25678 I25678 Sequence 10 from patent US  | 0.14    |
| 1198   | M57750      | S.pombe cut2+ gene, complete cds.   | 0.14    |
| 1199   | X03000      | Adenovirus type 7 genome left end (0.0 to 31 %)   | 0.14    |
| 1200   | NM_002911.1 | Homo sapiens regulator of nonsense transcripts 1 (RENT1) mRNA > :: gb U65533 HSU65533 Human regulator of nonsense transcript stability (RENT1) mRNA, complete cds | 0.14    |
| 1201   | Z71367      | S.cerevisiae chromosome XIV reading frame ORF   | 0.14    |
| 1202   | J04809      | Human cytosolic adenylate kinase (AK1) gene, complete   | 0.14    |
| 1203   | X75014      | M.musculus Phox2 mRNA for homeodomain protein   | 0.14    |
| 1204   | Y12259      | R.norvegicus mRNA for Kir3.1 protein  | 0.14    |
| 1205   | X81981      | L.helveticus plasmid pLH2 DNA (4 ORFs)  | 0.14    |
| 1206   | AB001901    | Homo sapiens PACE4 gene, exon 4-7   | 0.14    |
| 1207   | D38548      | Human mRNA for KIAA0076 gene, complete cds  | 0.14    |
| 1208   | X64273      | Herpesvirus saimiri gene 15 > :: gb I41338 I41338 Sequence 9 from patent US 5624837 > :: gb I49086 I49086 Sequence 9 from patent US 5627264                       | 0.13    |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 1209   | Z92779      | Caenorhabditis elegans cosmid C44E1, complete sequence<br>[Caenorhabditis elegans]   | 0.13    |
| 1210   | X14384      | Astasia longa chloroplast rpl5 gene for ribosomal protein L5   | 0.13    |
| 1211   | M97880      | Bacillus thuringiensis cryIC-related gene sequence. > ::<br>gb I82521 I82521 Sequence 1 from patent US 5712248 > ::<br>gb I93759 I93759 Sequence 1 from patent US 5731194  | 0.13    |
| 1212   | X58049      | H.sapiens DNA for ferredoxin repeat region   | 0.13    |
| 1213   | U47542      | Vibrio cholerae ADP-L-glycero-D-mannoheptose-6-<br>epimerase (rfaD) gene, complete cds.  | 0.13    |
| 1214   | M90758      | Sheep (clone C5-2) MHC class II cell surface glycoprotein<br>OLA-DRB (OLA-DRB) pseudogene, exon 4. > ::<br>gb S83918 S83914S3 DRB=MHC class II B {pseudogene}  | 0.13    |
| 1215   | U67478      | Methanococcus jannaschii section 20 of 150 of the complete   | 0.13    |
| 1216   | U90889      | Mus musculus transketolase (TKT) gene, partial cds   | 0.13    |
| 1217   | K03273      | C.elegans heat shock protein genes (hsp16-48 and hsp16-1),<br>complete cds.  | 0.13    |
| 1218   | D90736      | Escherichia coli genomic DNA. (22.6 - 23.0 min)  | 0.13    |
| 1219   | X63546      | H.sapiens mRNA for tre oncogene (clone 210)  | 0.13    |
| 1220   | L16770      | Anas platyrhynchos mitochondrial complete transfer RNA-<br>Glu, transfer RNA-Phe, transfer RNA-Val, transfer RNA-<br>Leu, 12S ribosomal RNA, and 16S ribosomal RNA genes   | 0.13    |
| 1221   | U94410      | Dictyostelium discoideum plasmid Ddp6 Rep protein  | 0.13    |
| 1222   | AC001083    | Homo sapiens (subclone 2_a6 from BAC H75) DNA  | 0.13    |
| 1223   | Z96048      | Caenorhabditis elegans cosmid F57A10, complete sequence<br>[Caenorhabditis elegans]  | 0.13    |
| 1224   | M92914      | Drosophila virilis mastermind gene, complete cds   | 0.13    |
| 1225   | Z82961      | Bacterial sp. partial 16S rRNA gene (clone group T4A)  | 0.13    |
| 1226   | U66535      | Human beta4-integrin (ITGB4) gene, exons   | 0.13    |
| 1227   | NM_001432.1 | Homo sapiens epiregulin (EREG) mRNA > ::<br>dbj D30783 D30783 Homo sapiens mRNA for epiregulin,<br>P.tetraurelia gamma1-51D immobilisation antigen gene, 3'<br>coding and non-coding region  | 0.13    |
| 1228   | X96468      | Kluyveromyces fragilis beta-glucosidase gene   | 0.13    |
| 1229   | X05918      | A.thaliana PARP mRNA for PARP protein  | 0.13    |
| 1230   | Z48243      | Human Hut 2 End gene   | 0.13    |
| 1231   | X56276      | Mus musculus Hox-3.2 gene  | 0.13    |
| 1232   | X55318      | Phalacrocorax pelagicus cytochrome b gene, mitochondrial<br>gene encoding mitochondrial protein, partial cds   | 0.13    |
| 1233   | U90009      | Homo sapiens nuclear hormone receptor (shp) gene, 3' end   | 0.13    |
| 1234   | L76571      | Human c-jun gene, promoter region with flanking<br>evolutionary conserved sequences  | 0.13    |
| 1235   | U60581      | B.mori gene for Nd-sD mutant fibroin light chain   | 0.13    |
| 1236   | Z26886      | Canis familiaris Kv1.2 delayed rectifier K+ channel mRNA,<br>complete cds  | 0.13    |
| 1237   | L19740      | Glycine max ribosomal protein S16 (rps16) gene, partial cds,<br>beta-carboxyltransferase (accD), photosystem I component<br>(psaI), ORF 202 protein (ORF 203), ORF 151 protein (ORF<br>151), ORF 103 protein (ORF 103), ORF 229 precursor... | 0.13    |
| 1238   | U26948      | Rattus norvegicus A-kinase anchoring protein AKAP 220<br>mRNA, complete cds  | 0.13    |
| 1239   | U48288      | P.deltoides gene for poplar bark storage protein   | 0.13    |
| 1240   | X70064      | Colletotrichum gloeosporioides pectin lyase (pnIA) gene,   | 0.13    |
| 1241   | L22857      | P.halophilus RepA and RepB genes   | 0.13    |
| 1242   | X75607      |  | 0.13    |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION | DESCRIPTION  | P VALUE |
|--------|-----------|--|---------|
| 1243   | X82584    | M.musculus mRNA for immunoglobulin heavy chain, V  | 0.13    |
| 1244   | M76713    | Spodoptera frugiperda 16S rRNA gene, Val-tRNA, and Leu-tRNA genes, and ND-1 protein gene, 5' end.  | 0.13    |
| 1245   | X57075    | H.sapiens FGF6 gene  | 0.13    |
| 1246   | Z17201    | H. sapiens (DXS1003) DNA segment containing  | 0.13    |
| 1247   | D50931    | Human mRNA for KIAA0141 gene, complete cds   | 0.13    |
| 1248   | D80002    | Human mRNA for KIAA0180 gene, partial cds  | 0.13    |
| 1249   | M58600    | Human heparin cofactor II (HCF2) gene, exons 1 through 5.  | 0.13    |
| 1250   | Z79998    | Human DNA sequence from cosmid B5E3 on chromosome 22 Contains CpG island, EST  | 0.13    |
| 1251   | X82868    | G.gallus microsatellite DNA (63G2)   | 0.13    |
| 1252   | AF009074  | Hepatitis C virus genomic RNA, 3' nontranslated region, partial sequence. clone #19  | 0.13    |
| 1253   | M26716    | Rat cAMP phosphodiesterase mRNA, complete cds., clone  | 0.13    |
| 1254   | Z57339    | H.sapiens CpG island DNA genomic MseI fragment, clone 171g3, reverse read cpg171g3.rt1a  | 0.13    |
| 1255   | U76524    | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds  | 0.13    |
| 1256   | AF000582  | Mus musculus nuclear receptor coactivator protein 2 mRNA, complete cds   | 0.13    |
| 1257   | D12917    | Yeast gene for a component of the pheromone signal transduction pathway, complete cds  | 0.13    |
| 1258   | X70326    | H.sapiens MacMarcks mRNA   | 0.13    |
| 1259   | X82237    | S.chinensis RAPD DNA (523 bp)  | 0.13    |
| 1260   | U10116    | Human superoxide dismutase (SOD3) gene, complete cds.  | 0.13    |
| 1261   | X73293    | M.vannielii genes rpoH, rpoB and rpoA  | 0.13    |
| 1262   | U01766    | Mycoplasma genitalium major adhesion protein MgPa gene, partial cds  | 0.13    |
| 1263   | X79706    | C.aetinum capr1 mRNA for pathogenesis-related protein  | 0.13    |
| 1264   | U45957    | Nicotiana glauca SA2-RNase precursor gene, complete cds.   | 0.13    |
| 1265   | X66313    | H.sapiens GLUDP2 gene (exon 2)   | 0.13    |
| 1266   | X07946    | Yeast plasmid DNA coding for RNA polymerase subunit  | 0.13    |
| 1267   | X07870    | Drosophila melanogaster bicoid gene bcd  | 0.13    |
| 1268   | X15308    | H.sapiens NF-H gene, exon 3  | 0.13    |
| 1269   | Z22551    | H.sapiens kinectin gene  | 0.13    |
| 1270   | X89398    | H.sapiens ung gene for uracil DNA-glycosylase  | 0.13    |
| 1271   | D10654    | S.coelicolor afsQ1 and afsQ2 genes   | 0.13    |
| 1272   | U10516    | Human DNA polymerase beta gene, exons 1 and 2  | 0.13    |
| 1273   | X57075    | H.sapiens FGF6 gene  | 0.13    |
| 1274   | U71193    | Mus musculus Rpl23 matrix-attachment region  | 0.13    |
| 1275   | X69908    | H.sapiens gene for mitochondrial ATP synthase c subunit  | 0.13    |
| 1276   | M81322    | Macaca fascicularis proline-rich protein (MnP4) gene,  | 0.13    |
| 1277   | X78401    | Bacteriophage P22 right operon, orf 48, replication genes 18 and 12, nin region genes, ninG phosphatase, late control gene 23, orf 60, complete cds, late control region, start of | 0.13    |
| 1278   | X78401    | Bacteriophage P22 right operon, orf 48, replication genes 18 and 12, nin region genes, ninG phosphatase, late control gene 23, orf 60, complete cds, late control region, start of | 0.13    |
| 1279   | Y09852    | H.sapiens FGFR3 gene, partial  | 0.13    |
| 1280   | Z71367    | S.cerevisiae chromosome XIV reading frame ORF  | 0.13    |
| 1281   | U38292    | Human microtubule-associated protein 1a (MAP1A) mRNA, complete cds   | 0.13    |
| 1282   | Z71367    | S.cerevisiae chromosome XIV reading frame ORF  | 0.13    |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 1283   | Z71367      | <i>S.cerevisiae</i> chromosome XIV reading frame ORF   | 0.13    |
| 1284   | M87623      | <i>Babesia bovis</i> variable antigen 1 mRNA, 5' end.  | 0.13    |
| 1285   | M91452      | <i>Sus scrofa</i> ryanodine receptor (RYR1) gene, complete cds.  | 0.13    |
| 1286   | M91452      | <i>Sus scrofa</i> ryanodine receptor (RYR1) gene, complete cds.  | 0.13    |
| 1287   | M87623      | <i>Babesia bovis</i> variable antigen 1 mRNA, 5' end.  | 0.13    |
| 1288   | X96616      | <i>P.primaurelia</i> gene encoding 156D surface antigen  | 0.13    |
| 1289   | Z33222      | <i>M.capricolum</i> DNA for CONTIG MC303   | 0.12    |
| 1290   | X52626      | <i>Phaseolus vulgaris</i> gene for alpha-phaseolin   | 0.12    |
| 1291   | L32699      | <i>Paracentrotus lividus</i> glutamine synthetase (GS) mRNA,   | 0.12    |
| 1292   | M63669      | Dog arginine esterase gene, complete cds.  | 0.12    |
| 1293   | X75653      | <i>A.longa</i> plastid genes for ribosomal proteins and tRNAs  | 0.12    |
| 1294   | Z11839      | <i>T.maritima</i> nusG gene and genes for ribosomal proteins   | 0.12    |
| 1295   | AB005744    | <i>Perilla frutescens</i> DNA for 1-limonene synthase, complete  | 0.12    |
| 1296   | X84904      | <i>Plasmodium falciparum</i> encoding Pfg27/25   | 0.12    |
| 1297   | L02074      | <i>Drosophila melanogaster</i> ribosomal protein S6 gene and two potential alternatively spliced proteins, complete cds                | 0.12    |
| 1298   | Z84812      | Human DNA sequence from phage pTEL from a contig from the tip of the short arm of chromosome 16, spanning 2Mb of 16p13.3 Contains ESTs | 0.12    |
| 1299   | X95276      | <i>P.falciparum</i> complete gene map of plastid-like DNA  | 0.12    |
| 1300   | NM_001432.1 | <i>Homo sapiens</i> epiregulin (EREG) mRNA > :: dbj D30783 D30783 <i>Homo sapiens</i> mRNA for epiregulin,                             | 0.12    |
| 1301   | X84726      | <i>M.musculus</i> neurocan gene  | 0.12    |
| 1302   | Z35810      | <i>S.cerevisiae</i> chromosome II reading frame ORF YBL049w  | 0.12    |
| 1303   | L01655      | <i>Plasmodium falciparum</i> T9/106 triosephosphate isomerase  | 0.12    |
| 1304   | U36796      | <i>Mus musculus</i> presynaptic protein SNAP-25 (Snap-25) gene,  | 0.12    |
| 1305   | U22361      | <i>Saccharomyces cerevisiae</i> Rlr1p (RLR1) gene, complete cds.   | 0.12    |
| 1306   | L04161      | <i>Plasmodium falciparum</i> (clone Pfg377 [PfsXLX]) DNA sequence, complete cds  | 0.12    |
| 1307   | U32768      | <i>Haemophilus influenzae</i> Rd section 83 of 163 of the  | 0.12    |
| 1308   | D28808      | <i>Mycoplasma capricolum</i> mtla and gyrB genes for DNA gyrase subunit B and mannitol-specific phosphotransferase                     | 0.12    |
| 1309   | L05920      | Human constitutively expressed serum amyloid A protein (SAA4) gene, exons 1 through 4.   | 0.12    |
| 1310   | M96642      | <i>Paramecium tetraurelia</i> P126 repetitive element.   | 0.12    |
| 1311   | L81724      | <i>Homo sapiens</i> (subclone 2_a3 from P1 H69) DNA sequence   | 0.12    |
| 1312   | AF010331    | <i>Tenebrio molitor</i> thermal hysteresis protein isoform YL-3 precursor, mRNA, complete cds  | 0.12    |
| 1313   | U74496      | Human chromosome 4q35 subtelomeric sequence  | 0.12    |
| 1314   | U17295      | <i>Haemophilus influenzae</i> dppB, dppC, dppD, dppF, isn, artP, artI/J, artQ, and artM genes, complete cds, and opa gene,             | 0.12    |
| 1315   | X53921      | <i>A. thaliana</i> T-DNA insertion genomic target sequence 621-  | 0.12    |
| 1316   | X75653      | <i>A.longa</i> plastid genes for ribosomal proteins and tRNAs  | 0.12    |
| 1317   | U09347      | Human variant urokinase plasminogen activator receptor (uPAR2) mRNA, partial cds.  | 0.12    |
| 1318   | S83182      | hyaluronan-binding protein=hepatocyte growth factor activator homolog [human, plasma, mRNA, 2408 nt]                                   | 0.12    |
| 1319   | U21164      | Human dopamine D5 receptor gene, 5' flanking and   | 0.12    |
| 1320   | AF022391    | Feline herpesvirus 1 immediate early protein, glycoprotein gL, and uracil DNA glycosylase genes, complete cds                          | 0.12    |
| 1321   | M74569      | <i>Clostridium acetobutylicum</i> heat shock protein   | 0.12    |
| 1322   | X15359      | <i>Drosophila virilis</i> hunchback (hb) gene for zinc-finger protein transcription factor   | 0.12    |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 1323   | U67478      | Methanococcus jannaschii section 20 of 150 of the complete   | 0.12    |
| 1324   | X77052      | Entomopoxvirus gene for spherulin  | 0.12    |
| 1325   | M97514      | Saccharomyces douglasii mitochondrial cytochrome c oxidase subunit I (COXI) gene, complete cds   | 0.12    |
| 1326   | X56495      | H.sapiens DNA for the upstream regulatory region of the c-erbB2 gene   | 0.12    |
| 1327   | D61398      | Human MSH3 gene, exon3   | 0.12    |
| 1328   | Z81595      | Caenorhabditis elegans cosmid T22H2, complete sequence [Caenorhabditis elegans]  | 0.12    |
| 1329   | D61398      | Human MSH3 gene, exon3   | 0.12    |
| 1330   | Z79998      | Human DNA sequence from cosmid B5E3 on chromosome 22 Contains CpG island, EST  | 0.12    |
| 1331   | NM_001280.1 | Homo sapiens cold inducible RNA-binding protein (CIRBP) mRNA > :: dbj D78134 HUMCIRPA Homo sapiens mRNA  | 0.12    |
| 1332   | Z49867      | Caenorhabditis elegans cosmid C33D3, complete sequence [Caenorhabditis elegans]  | 0.12    |
| 1333   | X14036      | Tomato cab-7 gene for type II chlorophyll a/b-binding  | 0.12    |
| 1334   | AF012899    | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds  | 0.12    |
| 1335   | U19159      | Human P protein (P) gene, exon 8   | 0.12    |
| 1336   | X74987      | H.sapiens mRNA for 2'-5' oligoadenylate binding protein > :: gb L24115 HUMAAZ Human DNA fragment. > :: emb A49723.1 A49723 Sequence 2 from Patent                                  | 0.12    |
| 1337   | U32112      | Dictyostelium discoideum 34 kDa actin binding protein gene, complete cds > :: emb Z50156 DD30KDABP D.discoideum gene for 34 kD actin binding protein                               | 0.12    |
| 1338   | M55002      | Synechococcus sp. 6-phosphogluconate dehydrogenase gene, complete cds.   | 0.12    |
| 1339   | AF019225    | Homo sapiens apolipoprotein L mRNA, complete cds   | 0.12    |
| 1340   | U14190      | Mycobacterium smegmatis diptheria toxin repressor homolog (dtxR) gene, complete cds.   | 0.12    |
| 1341   | J05276      | Rat 5-hydroxytryptamine-1a receptor (5-HT-1a) gene,  | 0.12    |
| 1342   | AE000603.1  | Helicobacter pylori 26695 section 81 of 134 of the complete  | 0.12    |
| 1343   | X15308      | H.sapiens NF-H gene, exon 3  | 0.12    |
| 1344   | L35600      | Homo sapiens DNA sequence.   | 0.12    |
| 1345   | Z73360      | Human DNA sequence from cosmid 92M18, BRCA2 gene region chromosome 13q12-13  | 0.12    |
| 1346   | U93721      | Homo sapiens green cone photoreceptor pigment gene, 5' flanking region   | 0.12    |
| 1347   | X78401      | Bacteriophage P22 right operon, orf 48, replication genes 18 and 12, nin region genes, ninG phosphatase, late control gene 23, orf 60, complete cds, late control region, start of | 0.12    |
| 1348   | Z71367      | S.cerevisiae chromosome XIV reading frame ORF  | 0.12    |
| 1349   | U43673      | Mus musculus putative transmembrane receptor IL-1Rrp mRNA, complete cds > :: gb AR016448 AR016448 Sequence 3 from patent US 5776731  | 0.12    |
| 1350   | X72863      | A.thaliana TMKL1 mRNA  | 0.12    |
| 1351   | U13769      | Vibrio sp. ppGpp synthetase I (relA) gene, complete cds.   | 0.12    |
| 1352   | M32732      | Chicken progesterone receptor gene, encoding forms A and   | 0.11    |
| 1353   | X04668      | Xenopus laevis XK81A1 keratin gene > :: emb X04804 XLXK81A1 Xenopus laevis DNA for stage-specific epidermal type I keratin A1 (embryo- and larval-                                 | 0.11    |



Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION   | P VALUE |
|--------|-------------|---|---------|
| 1354   | Z82197      | Human DNA sequence from PAC 293L6 on chromosome 22, complete sequence [Homo sapiens]  | 0.11    |
| 1355   | M84214      | Cucumis sativus ORF 1, chitinase, and ORF 3 genes, complete cds > :: gb I38466 I38466 Sequence 36 from patent US 5614395 > :: gb I56941 I56941 Sequence 36 from patent US 5650505 > :: gb I59807 I59807 Sequence 36 from patent US 5654414 > :: gb I75134 I7513 | 0.11    |
| 1356   | Y08503      | F.domesticus mitochondrial 12S rRNA gene  | 0.11    |
| 1357   | L03286      | Hamster P-glycoprotein class I (pgp1) gene exons 1-2.   | 0.11    |
| 1358   | X57171      | D.caryophyllus CARSR12 gene   | 0.11    |
| 1359   | L07307      | Mus musculus ATPase mRNA-ampifying genomic DNA MOR6.5 sequence. > :: gb S55685 S55685 MOR6.5=ouabain resistance gene {repeat sequence} [mice,   | 0.11    |
| 1360   | Z22175      | Caenorhabditis elegans cosmid K01F9, complete sequence [Caenorhabditis elegans]   | 0.1     |
| 1361   | Z11839      | T.maritima nusG gene and genes for ribosomal proteins   | 0.1     |
| 1362   | L36857      | Pisum sativum GTP-binding protein (IAP86) mRNA,   | 0.096   |
| 1363   | AF000994    | Homo sapiens ubiquitous TPR motif, Y isoform  | 0.07    |
| 1364   | U61950      | Caenorhabditis elegans cosmid C45E5   | 0.069   |
| 1365   | U32446      | Mus musculus putative breast/ovarian cancer susceptibility protein homolog (Brca1) mRNA, complete cds.  | 0.068   |
| 1366   | AB001914    | Homo sapiens PACE4 gene, exon 23-25, complete cds   | 0.068   |
| 1367   | L20934      | Anopheles gambiae complete mitochondrial genome   | 0.066   |
| 1368   | AJ001700    | Mus musculus mRNA for neuroserpin   | 0.065   |
| 1369   | AJ001700    | Mus musculus mRNA for neuroserpin   | 0.065   |
| 1370   | AF106932    | Drosophila melanogaster plexin A (plexA) mRNA, complete   | 0.065   |
| 1371   | D82813      | Populus kitakamiensis cyp73b gene for cinnamic acid 4-hydroxylase, partial cds  | 0.065   |
| 1372   | V01087      | Hemagglutinin gene of influenza virus strain  | 0.065   |
| 1373   | AE001178    | Borrelia burgdorferi (section 64 of 70) of the complete   | 0.064   |
| 1374   | X80199      | H.sapiens MLN51 mRNA  | 0.064   |
| 1375   | AF042384    | Homo sapiens BC-2 protein mRNA, complete cds  | 0.064   |
| 1376   | AJ223485    | Enoplateuthis higginsii mitochondrial 16S rRNA  | 0.063   |
| 1377   | AF086094    | Homo sapiens full length insert cDNA clone YZ87H06  | 0.061   |
| 1378   | AF017027    | African swine fever virus lectin homolog (8CR) gene,  | 0.061   |
| 1379   | U56084      | Bordetella bronchiseptica electron transfer flavoprotein alpha subunit (etfA) gene, partial cds, and exogenous ferric siderophore receptor (bfrA) gene, complete cds  | 0.06    |
| 1380   | M33387      | Human debrisoquine 4-hydroxylase (CYP2D8P) and  | 0.057   |
| 1381   | M25315      | Homo sapiens (clone pAT 464) potential lymphokine/cytokine mRNA, complete cds.  | 0.057   |
| 1382   | AB011121    | Homo sapiens mRNA for KIAA0549 protein, partial cds   | 0.055   |
| 1383   | NM_002647.1 | Homo sapiens phosphatidylinositol 3-kinase, class 3 (PIK3C3) mRNA > :: emb Z46973 HSPITR1 H.sapiens mRNA for phosphatidylinositol 3-kinase  | 0.051   |
| 1384   | Z18274      | Homo sapiens satellite DNA  | 0.05    |
| 1385   | L25941      | Homo sapiens integral nuclear envelope inner membrane protein (LBR) gene, complete cds.   | 0.049   |
| 1386   | U28171      | Trypanosoma cruzi kinetoplast putative maxicircle divergent   | 0.049   |
| 1387   | X76168      | R.norvegicus mRNA for connexin 30.3   | 0.049   |
| 1388   | L34345      | Morganella morganii xylitol repressor, complete cds; xylitol dehydrogenase, complete cds; xylulokinase, 5' end.   | 0.049   |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION | DESCRIPTION   | P VALUE |
|--------|-----------|---|---------|
| 1389   | K01322    | Human Ig germline kappa L-chain V-region gene germline kappa L-chain V-region gene (HK189), V-kappa-1.  | 0.049   |
| 1390   | S72468    | capsid protein {RNA 3} [tomato aspermy virus TAV-B, Blencowe, Genomic RNA, 2213 nt]   | 0.049   |
| 1391   | L08426    | Zea mays auxin-binding protein (abp4) gene, exons 1-5 and complete cds.   | 0.048   |
| 1392   | X96972    | D.buzzatii copia element DNA  | 0.048   |
| 1393   | X17147    | Canine mRNA for thyrotropin (TSH) receptor variant  | 0.048   |
| 1394   | L13164    | Saccharomyces cerevisiae k9 killer toxin resistant  | 0.047   |
| 1395   | X66451    | E.octocarinatus RPA2 gene for RNA polymerase I second largest subunit   | 0.047   |
| 1396   | X75426    | G.biloba (developing endosperm) ginnacin mRNA   | 0.047   |
| 1397   | M95171    | Aedes aegypti LINE retrotransposon Juan-A including DNA binding protein and reverse transcriptase-like protein mRNA, complete coding regions. | 0.047   |
| 1398   | Z49076    | R.prowazekii gene (unknown)   | 0.047   |
| 1399   | K01323    | Human Ig germline kappa L-chain V-region gene germline immunoglobulin heavy chain, kappa chain,   | 0.047   |
| 1400   | L48713    | Homo sapiens galactose-1-phosphate uridyl transferase (GALT) mutant V44L gene, exon 7 (M96246 bases 303-                                      | 0.047   |
| 1401   | U77310    | Drosophila melanogaster porcupine mRNA, complete cds  | 0.047   |
| 1402   | J01323    | Yeast (S. cerevisiae) enolase gene (clone peno8) and flanks.  | 0.047   |
| 1403   | L14321    | Bovine herpesvirus type 1 immediate-early transcriptional control protein (BICP4) gene, 5' end.   | 0.047   |
| 1404   | L19266    | Homo sapiens myotonic dystrophy-associated protein kinase and 59 genes.   | 0.047   |
| 1405   | M58600    | Human heparin cofactor II (HCF2) gene, exons 1 through 5.   | 0.046   |
| 1406   | D86964    | Human mRNA for KIAA0209 gene, partial cds   | 0.046   |
| 1407   | Z83329    | S.salar mRNA for transport associated protein Tap2B   | 0.046   |
| 1408   | L27331    | Glyphinaphis bambusae mitochondrial cytochrome oxidase subunit I gene, 3' end, and cytochrome oxidase subunit II                              | 0.046   |
| 1409   | U57613    | Human interleukin-2 receptor alpha chain (IL2RA) gene, promoter region  | 0.046   |
| 1410   | U24088    | Solanum tuberosum sucrose synthase gene, clone gPOSS65, complete cds.   | 0.046   |
| 1411   | V01087    | Hemagglutinin gene of influenza virus strain  | 0.046   |
| 1412   | S76792    | OX40=cell surface antigen [human, mRNA Partial, 1034 nt]  | 0.046   |
| 1413   | U72396    | Lycopersicon esculentum class II small heat shock protein Le-HSP17.6 mRNA, complete cds   | 0.046   |
| 1414   | U51677    | Human non-histone chromatin protein HMG1 (HMG1) gene, complete cds  | 0.046   |
| 1415   | X98743    | H.sapiens mRNA for RNA helicase (Myc-regulated dead   | 0.046   |
| 1416   | M63868    | C.hircus alpha-lactalbumin gene, exons 1-4.   | 0.046   |
| 1417   | Z92970    | Caenorhabditis elegans cosmid H06O01, complete sequence [Caenorhabditis elegans]  | 0.045   |
| 1418   | M29482    | Human leukocyte adhesion protein p150,95 alpha subunit gene, exons 2 - 6.   | 0.045   |
| 1419   | Z78942    | H.sapiens flow-sorted chromosome 6 HindIII fragment,  | 0.045   |
| 1420   | L06863    | Cricetulus griseus type VII collagen mRNA, 3' end.  | 0.045   |
| 1421   | X86449    | E.caballus DNA segment containing microsatellite  | 0.045   |
| 1422   | U32446    | Mus musculus putative breast/ovarian cancer susceptibility protein homolog (Brca1) mRNA, complete cds.  | 0.045   |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION | DESCRIPTION  | P VALUE |
|--------|-----------|--|---------|
| 1423   | K01323    | Human Ig germline kappa L-chain V-region gene germline immunoglobulin heavy chain, kappa chain,  | 0.045   |
| 1424   | M13555    | Human Ia-associated invariant gamma-chain gene, exon 1, clones lambda-y(1,2,3).  | 0.045   |
| 1425   | U68562    | Rattus norvegicus chaperonin 60 (Hsp60) and chaperonin 10 (CPN10) genes, nuclear genes encoding mitochondrial  | 0.045   |
| 1426   | AB003286  | Homo sapiens DNA for choline kinase like protein and muscle type carnitine palmitoyltransferase I, partial and   | 0.045   |
| 1427   | U34372    | Human tyrosine kinase TXK (txk) gene, exon 6.  | 0.045   |
| 1428   | U51677    | Human non-histone chromatin protein HMG1 (HMG1) gene, complete cds   | 0.045   |
| 1429   | U23476    | Dictyostelium discoideum phosphatidylinositol-4,5-diphosphate 3-kinase (PIK1) mRNA, complete cds.  | 0.045   |
| 1430   | Z98975    | S.pombe chromosome I cosmid c19E9  | 0.044   |
| 1431   | X16465    | Trypanosoma brucei mRNA for cysteine proteinase  | 0.044   |
| 1432   | D85274    | Macaca fascicularis mitochondrial DNA for NADH dehydrogenase subunit 4, subunit 5, partial cds   | 0.044   |
| 1433   | X16876    | Soybean ENOD2B gene for Ngm-75   | 0.044   |
| 1434   | U19755    | Mus domesticus thyroid transcription factor 1 gene,  | 0.044   |
| 1435   | L77700    | Gallus gallus 18C15 mRNA, complete cds.  | 0.044   |
| 1436   | AF019981  | Dictyostelium discoideum HeLE (heLE) gene, partial cds   | 0.044   |
| 1437   | L13469    | Saccharomyces cerevisiae antiviral protein Ski2p   | 0.044   |
| 1438   | M26238    | D.discoideum spore coat protein SP70 gene, complete cds.   | 0.044   |
| 1439   | U65391    | Lycopersicon esculentum PRF (Prf) gene, complete cds   | 0.044   |
| 1440   | AF000582  | Mus musculus nuclear receptor coactivator protein 2 mRNA, complete cds   | 0.044   |
| 1441   | X98880    | C.albicans ARG5,6 gene   | 0.044   |
| 1442   | D89609    | Oryzias latipes mRNA for choriogenin H, complete cds   | 0.044   |
| 1443   | Y13544    | Homo sapiens cosmid C1   | 0.044   |
| 1444   | Y14952    | Mus musculus gene encoding immunoglobulin J chain  | 0.043   |
| 1445   | Z69660    | Caenorhabditis elegans cosmid F39B1, complete sequence [Caenorhabditis elegans]  | 0.043   |
| 1446   | X53404    | Glycine max glycinin A(1a)B(1b) and A(2)B(1a) boundary   | 0.043   |
| 1447   | U48271    | Dictyostelium discoideum UbpA deubiquitinase mRNA,   | 0.043   |
| 1448   | U24187    | Saccharomyces cerevisiae origin recognition complex, subunit 5 (ORC5) gene, complete cds > :: gb I32734 I32734 Sequence 9 from patent US 5589341 > :: gb I38710 I38710 Sequence 9 from patent US 5614618 | 0.043   |
| 1449   | Z28177    | S.cerevisiae chromosome XI reading frame ORF YKL178c   | 0.043   |
| 1450   | X05951    | Drosophila melanogaster calmodulin gene exon 4 and intron III (partial)  | 0.043   |
| 1451   | L12999    | Daltonia sp. mitochondrial 16S ribosomal RNA   | 0.043   |
| 1452   | U68098    | Human poly(A)-binding protein (PABP) gene, exons 6 and 7   | 0.043   |
| 1453   | U55774    | Caenorhabditis elegans cosmid F35G8.   | 0.043   |
| 1454   | Z46941    | H.sapiens DNA for alu repeats  | 0.043   |
| 1455   | U41747    | Caenorhabditis elegans cosmid ZK1131.  | 0.043   |
| 1456   | M30168    | D.melanogaster nested repetitive sequences F and G,  | 0.043   |
| 1457   | U05350    | Human immunodeficiency virus type 2 isolate HIV2CBL21 gp160 envelope (env) gene, complete cds.   | 0.042   |
| 1458   | U44129    | Rattus norvegicus p58 mRNA, complete cds   | 0.042   |
| 1459   | L13377    | Staphylococcus aureus enterotoxin gene, 3' end.  | 0.042   |
| 1460   | X83758    | P.falciparum topoisomerase I gene  | 0.042   |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION | DESCRIPTION   | P VALUE |
|--------|-----------|---|---------|
| 1461   | U64896    | Anagrapha falcifera nuclear polyhedrosis virus protein-tyrosine phosphatase, lef-2, polyhedrin, vp78 and protein kinase genes, complete cds | 0.042   |
| 1462   | J02175    | Influenza A/wsn/33 (h1n1), defective interfering 13, cdna.  | 0.042   |
| 1463   | D86608    | Arabidopsis thaliana DNA for inorganic phosphate transporter, complete cds  | 0.042   |
| 1464   | M93716    | Pan paniscus DNA fragment.  | 0.042   |
| 1465   | X14385    | Astasia longa chloroplast rps7 and tufA genes for ribosomal protein S7 and elongation factor Tu respectively                                | 0.042   |
| 1466   | M74069    | Saccharomyces cerevisiae endochitinase (CTS1-1) gene, complete cds.   | 0.042   |
| 1467   | M73257    | C.parasitica laccase (lac-1) gene, complete cds.  | 0.042   |
| 1468   | M31126    | Human pregnancy-specific beta-1-glycoprotein (SP1) mRNA, complete cds, clone hPS2.  | 0.042   |
| 1469   | U70826    | Fundulus heteroclitus vitellogenin II precursor mRNA,   | 0.041   |
| 1470   | AF000299  | Caenorhabditis elegans cosmid E03H12  | 0.041   |
| 1471   | X83390    | Albinaria coerulea complete mitochondria DNA  | 0.041   |
| 1472   | L12582    | Human ornithine decarboxylase (ODC) gene, 5' flanking   | 0.041   |
| 1473   | D89655    | Rattus norvegicus mRNA for scavenger receptor class B, complete cds   | 0.041   |
| 1474   | Z23267    | P.anserina AS1 gene, complete CDS   | 0.041   |
| 1475   | M63868    | C.hircus alpha-lactalbumin gene, exons 1-4.   | 0.041   |
| 1476   | U56440    | Human His-1 gene sequence   | 0.04    |
| 1477   | L06863    | Cricetulus griseus type VII collagen mRNA, 3' end.  | 0.04    |
| 1478   | U02928    | Dictyostelium discoideum Ax3 Rab7 mRNA, complete cds.   | 0.04    |
| 1479   | M19828    | Human apolipoprotein B-100 (apoB) gene, exons 22 through  | 0.04    |
| 1480   | M34434    | Human angiotensin-converting enzyme (ACE) gene, 5' end.   | 0.04    |
| 1481   | Z68884    | Human DNA sequence from cosmid L21F12, Huntington's Disease Region, chromosome 4p16.3   | 0.04    |
| 1482   | M99367    | Pig alveolar macrophage-derived chemotactic factor-I (AMCF-I) mRNA, complete cds.   | 0.04    |
| 1483   | U70370    | Human hindlimb expressed homeobox protein backfoot (Bft) mRNA, complete cds   | 0.04    |
| 1484   | U10698    | Rattus norvegicus liver microsomal carboxylesterase mRNA, complete cds.   | 0.04    |
| 1485   | U28171    | Trypanosoma cruzi kinetoplast putative maxicircle divergent   | 0.04    |
| 1486   | U79297    | Human clone 23589 mRNA sequence   | 0.04    |
| 1487   | X13764    | Yeast centromere CEN1 repetitive DNA PSS113, part of  | 0.04    |
| 1488   | Z24568    | H. sapiens (D9S286) DNA segment containing  | 0.04    |
| 1489   | M63868    | C.hircus alpha-lactalbumin gene, exons 1-4.   | 0.04    |
| 1490   | X64143    | F.trinervia ppcA1 gene for phosphoenolpyruvate  | 0.039   |
| 1491   | M16339    | Entamoeba histolytica actin mRNA, complete cds.   | 0.039   |
| 1492   | U36475    | Mus musculus breast and ovarian cancer susceptibility protein (Brca1) mRNA, complete cds  | 0.039   |
| 1493   | X02570    | Flesh fly gene for 25-kDa protein   | 0.039   |
| 1494   | M32475    | Rattus norvegicus carcinoembryonic antigen-related protein (CGM4) gene, exons 2 and 3.  | 0.039   |
| 1495   | D89609    | Oryzias latipes mRNA for choriogenin H, complete cds  | 0.039   |
| 1496   | AF011573  | Homo sapiens zinc finger protein (ZnF20) mRNA, complete   | 0.039   |
| 1497   | X15050    | Mouse mRNA for 3'-end of NCAM-120 isoform   | 0.039   |
| 1498   | Z11533    | D.discoideum rasG gene  | 0.038   |
| 1499   | AB000450  | Homo sapiens mRNA for VRK2, complete cds  | 0.038   |
| 1500   | X78983    | D.melanogaster Fab-7 regulatory region  | 0.038   |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION | DESCRIPTION  | P VALUE |
|--------|-----------|--|---------|
| 1501   | D89609    | Oryzias latipes mRNA for choriogenin H, complete cds   | 0.038   |
| 1502   | Z49535    | S.cerevisiae chromosome X reading frame ORF YJR035w  | 0.038   |
| 1503   | L13377    | Staphylococcus aureus enterotoxin gene, 3' end.  | 0.035   |
| 1504   | L12582    | Human ornithine decarboxylase (ODC) gene, 5' flanking  | 0.035   |
| 1505   | Z48584    | Caenorhabditis elegans cosmid ZK1321, complete sequence [Caenorhabditis elegans]                                 | 0.023   |
| 1506   | Y00204    | Xenopus laevis mRNA fragment for nucleoplasmin   | 0.021   |
| 1507   | S77817    | light-chain fibroin [Galleria mellonella=waxmoths, larvae, cocoons, posterior silk glands, mRNA, 1191 nt]        | 0.021   |
| 1508   | L13926    | Trypanosoma cruzi (strain La Cruz, Jalisco) ribosomal RNA transcribed spacer and 18S ribosomal RNA gene, 5' end. | 0.02    |
| 1509   | Z78910    | H.sapiens flow-sorted chromosome 6 HindIII fragment,   | 0.02    |
| 1510   | AB007976  | Homo sapiens mRNA, chromosome 1 specific transcript  | 0.02    |
| 1511   | U01307    | Human scRNA (BC200 beta) pseudogene.   | 0.017   |
| 1512   | J03998    | P.falciparum glutamic acid-rich protein gnen, complete cds.  | 0.017   |
| 1513   | X93497    | H.sapiens TRAP gene, intron 4 (partial)  | 0.017   |
| 1514   | M15656    | Human aldolase B (ALDOB) gene, exons 7 through 9.  | 0.016   |
| 1515   | X74965    | H.sapiens ACPP gene for prostatic acid phosphatase (non-coding region)   | 0.016   |
| 1516   | X75653    | A.longa plastid genes for ribosomal proteins and tRNAs   | 0.016   |
| 1517   | X75653    | A.longa plastid genes for ribosomal proteins and tRNAs   | 0.016   |
| 1518   | X58852    | Human MLC1emb gene for embryonic myosin alkaline light chain, exon 2   | 0.016   |
| 1519   | U69695    | Mus musculus hyaluronan synthase homolog mRNA,   | 0.016   |
| 1520   | S45332    | erythropoietin receptor [human, placental, Genomic, 8647   | 0.016   |
| 1521   | U09865    | Alcaligenes eutrophus pyruvate dehydrogenase dihydrolipoamide dehydrogenase (pdhL), and ORF3 genes,              | 0.016   |
| 1522   | U67815    | Human primary Alu transcript   | 0.016   |
| 1523   | AE000466  | Escherichia coli K-12 MG1655 section 356 of 400 of the complete genome   | 0.016   |
| 1524   | M80785    | M.musculus tissue factor promoter (Cf-3) gene, exon 1.   | 0.016   |
| 1525   | L37035    | Drosophila virilis brown protein (bw) gene, complete cds.  | 0.016   |
| 1526   | M15009    | Mouse steroid 21-hydroxylase A (21-OHase A) gene,  | 0.016   |
| 1527   | U67500    | Methanococcus jannaschii section 42 of 150 of the complete   | 0.016   |
| 1528   | AB000044  | Rhizoctonia solani 5.8S rRNA gene, complete sequence   | 0.016   |
| 1529   | X52956    | Human CAMII-psi3 calmodulin retropseudogene  | 0.016   |
| 1530   | U80581    | Pleurodeles waltl Wnt-7a mRNA, complete cds  | 0.016   |
| 1531   | Z69918    | Human DNA sequence from cosmid 91K3, Huntington's Disease Region, chromosome 4p16.3 contains CpG island          | 0.016   |
| 1532   | Z98031    | Human immunodeficiency virus type 1 nef gene   | 0.016   |
| 1533   | D45858    | imnimmunodeficiency virus type 1 nef gene (strain KU15-1)  | 0.016   |
| 1534   | L24549    | Mus musculus mRNA for synaptotagmin III, complete cds  | 0.016   |
| 1535   | U66291    | Gallus gallus Gi2 protein alpha-subunit mRNA, complete   | 0.016   |
| 1536   | X63436    | Catagonus wagneri cytochrome b gene, mitochondrial gene encoding mitochondrial protein, partial cds              | 0.016   |
| 1537   | L23498    | B.taurus mRNA for poly(A) polymerase   | 0.016   |
| 1538   | AF003086  | Bovine microsatellite repeats  | 0.015   |
| 1539   | U17377    | Plasmodium falciparum transcription factor homolog PfSNF2L mRNA, complete cds                                    | 0.015   |
| 1540   | L23498    | Strongylocentrotus purpuratus cortical granule protein with LDL-receptor-like repeats mRNA, partial cds.         | 0.015   |
| 1541   | X85117    | Bovine microsatellite repeats  | 0.015   |
|        |           | H.sapiens epb72 gene exons 2,3,4,5,6,7   | 0.015   |

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| SEQ ID | ACCESSION | DESCRIPTION  | P VALUE |
|--------|-----------|--|---------|
| 1542   | Z16906    | H. sapiens (D14S73) DNA segment containing   | 0.015   |
| 1543   | X99400    | S.pneumoniae dacA gene and ORF   | 0.015   |
| 1544   | M32061    | Rat alpha-2B-adrenergic receptor (RNG-alpha-2) mRNA,   | 0.015   |
| 1545   | X80930    | S.cerevisiae RHC18 genes   | 0.015   |
| 1546   | U09865    | Alcaligenes eutrophus pyruvate dehydrogenase dihydrolipoamide dehydrogenase (pdhL), and ORF3 genes,                | 0.015   |
| 1547   | Z22952    | Mus musculus BALB/c of p65 gene encoding p65 subunit of transcription factor NF-kappaB                             | 0.015   |
| 1548   | L34610    | Mus musculus parathyroid hormone/parathyroid hormone related-peptide receptor (PTHrP) gene, exons 5 - 9.           | 0.015   |
| 1549   | Z54850    | H.sapiens CpG island DNA genomic MseI fragment, clone 169b5, reverse read cpg169b5.rt1a                            | 0.015   |
| 1550   | U01307    | Human scRNA (BC200 beta) pseudogene.   | 0.015   |
| 1551   | M54994    | Human bile salt-activated lipase (BAL) mRNA, complete  | 0.015   |
| 1552   | Z98031    | Human immunodeficiency virus type 1 nef gene immunodeficiency virus type 1 nef gene (strain KU15-1)                | 0.015   |
| 1553   | Z21858    | M.Musculus mRNA for P domain protein   | 0.015   |
| 1554   | M33518    | Human HLA-B-associated transcript 2 (BAT2) gene, 3' end.   | 0.015   |
| 1555   | AB001383  | Rattus norvegicus mRNA for sialoprotein, complete cds  | 0.015   |
| 1556   | U72787    | Homo sapiens cosmid clone U163C11 from Xp22.1-22.2, complete sequence [Homo sapiens]                               | 0.014   |
| 1557   | AF012899  | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds  | 0.014   |
| 1558   | J03764    | Human, plasminogen activator inhibitor-1 gene, exons 2 to  | 0.014   |
| 1559   | AF012899  | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds  | 0.014   |
| 1560   | AB003097  | Fruitfly strain g20 mitochondrial DNA, A+T-rich region, partial sequence   | 0.014   |
| 1561   | AC001017  | Homo sapiens (subclone 2_g8 from P1 H43) DNA sequence  | 0.014   |
| 1562   | Z48484    | H.sapiens gene for tissue-type plasminogen activator   | 0.014   |
| 1563   | AC001460  | Homo sapiens (subclone 2_f4 from BAC H107) DNA   | 0.014   |
| 1564   | U09865    | Alcaligenes eutrophus pyruvate dehydrogenase dihydrolipoamide dehydrogenase (pdhL), and ORF3 genes,                | 0.014   |
| 1565   | U00691    | Dictyostelium discoideum plasmid Ddp1 D2 orf, D1/D3 orf, G4/D5 orf, G5/D6 orf, G1 orf, G2/G3/D4 orf, complete cds  | 0.014   |
| 1566   | D16482    | Sarcophaga peregrina mRNA for poly(ADP-ribose)   | 0.014   |
| 1567   | AF012899  | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds  | 0.014   |
| 1568   | M63599    | Human myelin basic protein (MBP) gene, exon 1.   | 0.014   |
| 1569   | U03891    | Human phorbolin I mRNA, partial cds.   | 0.014   |
| 1570   | X53422    | D. grimshawi s18, s15, s19 and s16 chorion protein genes   | 0.013   |
| 1571   | X01870    | Yeast mitochondrial ori(o) repeat unit of petite mutant 4 (petite strain a-10/3/2/B11)                             | 0.013   |
| 1572   | Z92804    | Caenorhabditis elegans cosmid K05D4, complete sequence [Caenorhabditis elegans]                                    | 0.013   |
| 1573   | M76377    | Human cysteine-rich protein (CRP) gene, exons 3 and 4.   | 0.013   |
| 1574   | D29801    | Mouse mRNA for unknown product, complete cds   | 0.013   |
| 1575   | U77984    | Sus scrofa microsatellite S0058 sequence   | 0.013   |
| 1576   | Z55882    | H.sapiens CpG island DNA genomic MseI fragment, clone 70g8, reverse read cpg70g8.rt1a                              | 0.013   |
| 1577   | V00531    | Human interferon genes LeIF-L and LeIF-J and pseudogene LeIF-M with intergenic regions. These genes are located on | 0.013   |
| 1578   | Z74361    | S.cerevisiae chromosome IV reading frame ORF YDR065w   | 0.013   |

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| SEQ ID | ACCESSION | DESCRIPTION  | P VALUE |
|--------|-----------|--|---------|
| 1579   | D00374    | Herpes simplex virus type 1 (HSV-1) genome, rightmost part of the long unique region (UL) and all of the internal long | 0.013   |
| 1580   | U53502    | Arabidopsis thaliana chromosome I cosmid g17311 DNA.   | 0.013   |
| 1581   | K03196    | Human interferon-beta-3 gene.  | 0.013   |
| 1582   | M23456    | Zea mays (clone pCIB808) encoding maize nitrite reductase (NiR) cDNA to mRNA, partial cds.                             | 0.013   |
| 1583   | X66120    | H.sapiens F8VWFL DNA of the von Willebrand factor pseudogene (5'portion)   | 0.013   |
| 1584   | M63962    | Human gastric H,K-ATPase catalytic subunit gene, complete  | 0.011   |
| 1585   | AF039592  | Homo sapiens succinate dehydrogenase subunit C   | 0.007   |
| 1586   | Y10908    | B.cereus cysA and wapA genes   | 0.007   |
| 1587   | AF048988  | Homo sapiens MutS homolog 5 (MSH5) gene, exons 1   | 0.007   |
| 1588   | AF048988  | Homo sapiens MutS homolog 5 (MSH5) gene, exons 1   | 0.007   |
| 1589   | D90822    | E.coli genomic DNA, Kohara clone #331(40.1-40.4 min.)  | 0.007   |
| 1590   | D87903    | Mouse mRNA for ARF6, complete cds  | 0.006   |
| 1591   | L38851    | Mycobacterium tuberculosis cell surface protein  | 0.006   |
| 1592   | U66362    | Human neuronal nitric oxide synthase (nNOS) gene, alternatively spliced 5' exon Tex 2 and flanking sequences           | 0.005   |
| 1593   | L11670    | Human transmembrane glycoprotein (CD53) gene, exons 2  | 0.005   |
| 1594   | U20587    | Sus scrofa domestica sister of P-glycoprotein  | 0.005   |
| 1595   | U53016    | Human DXYS154 microsatellite sequence  | 0.005   |
| 1596   | Z29641    | Zea mays of USE gene encoding U3snRNA  | 0.005   |
| 1597   | D16473    | Human mRNA, Xq terminal portion  | 0.005   |
| 1598   | X02175    | Schizosaccharomyces pombe cdc10 start gene   | 0.005   |
| 1599   | U25029    | Human glucocorticoid receptor alpha mRNA, variant 3'   | 0.005   |
| 1600   | Z68685    | Human DNA sequence from cosmid N2E9 on chromosome 22, complete sequence [Homo sapiens]                                 | 0.005   |
| 1601   | U40369    | Human spermidine/spermine N1-acetyltransferase   | 0.005   |
| 1602   | U06965    | Aphytis melinus mitochondrion 16S rRNA gene, partial   | 0.005   |
| 1603   | Z81014    | Human DNA sequence from cosmid U65A4, between markers DXS366 and DXS87 on chromosome X *                               | 0.005   |
| 1604   | X91923    | H.sapiens ECE-1 gene (exon 3)  | 0.005   |
| 1605   | Z29641    | Zea mays of USE gene encoding U3snRNA  | 0.005   |
| 1606   | L11670    | Human transmembrane glycoprotein (CD53) gene, exons 2  | 0.005   |
| 1607   | U15605    | Nicotiana glutinosa virus resistance (N) gene, complete cds.   | 0.005   |
| 1608   | X57698    | A.thaliana DNA for acyl carrier protein (ACP) gene A1  | 0.005   |
| 1609   | L81391    | Homo sapiens (subclone 2 a6 from P1 H39) DNA sequence  | 0.005   |
| 1610   | X81789    | H.sapiens mRNA for splicing factor SF3a60  | 0.005   |
| 1611   | X82818    | H.sapiens PTP1C/HCP gene   | 0.005   |
| 1612   | U33465    | Drosophila melanogaster S element and flanking sequence,   | 0.005   |
| 1613   | Z75042    | S.cerevisiae chromosome XV reading frame ORF YOR134w   | 0.005   |
| 1614   | M98574    | Mouse T cell receptor rearranged alpha--chain variable region, N_region, joining region, and constant region           | 0.005   |
| 1615   | X51907    | Human vimentin gene 5' regulatory region   | 0.005   |
| 1616   | U50383    | Human retinoic acid-responsive protein (NN8-4AG) mRNA, complete cds  | 0.005   |
| 1617   | M25140    | Human cardiac alpha-myosin heavy chain (MYH6) gene, exons 2, 3 and 4.  | 0.005   |
| 1618   | X66062    | G.max tufA gene for chloroplast translation elongation   | 0.005   |
| 1619   | U16345    | Gallus gallus protein kinase gene (cPITSLRE) gene, exons 4   | 0.005   |
| 1620   | AF012899  | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds  | 0.005   |



Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION  | DESCRIPTION  | P VALUE |
|--------|------------|--|---------|
| 1621   | U43834     | Saccharomyces cerevisiae chromosome IV lambda 3073 and flanking region extending into right telomere | 0.005   |
| 1622   | X13602     | Caldocellum saccharolyticum celB gene for cellobiohydrolase/endocellulase                            | 0.005   |
| 1623   | J04809     | Human cytosolic adenylate kinase (AK1) gene, complete  | 0.005   |
| 1624   | L49144     | Homo sapiens neuroendocrine-specific protein (NSP) gene, exons 1B and 3                              | 0.005   |
| 1625   | L34028     | Plasmodium falciparum (clone HB3) heat shock protein 86 gene, complete cds.                          | 0.005   |
| 1626   | U50383     | Human retinoic acid-responsive protein (NN8-4AG) mRNA, complete cds                                  | 0.005   |
| 1627   | U23829     | Lucilia cuprina peritrophin-95 precursor gene, partial cds.  | 0.005   |
| 1628   | AE000629.1 | Helicobacter pylori 26695 section 107 of 134 of the  | 0.005   |
| 1629   | M16446     | Human adenine phosphoribosyltransferase (APRT) gene, complete cds.                                   | 0.005   |
| 1630   | U34605     | Human retinoic acid- and interferon-inducible 58K protein RI58 mRNA, complete cds.                   | 0.005   |
| 1631   | M25140     | Human cardiac alpha-myosin heavy chain (MYH6) gene, exons 2, 3 and 4.                                | 0.005   |
| 1632   | X16426     | Mouse MHC (Qa) Q10-k gene for class I antigen  | 0.005   |
| 1633   | M83985     | Mouse phosphoprotein (F1-20) mRNA, complete cds.   | 0.005   |
| 1634   | U31850     | Human dystonin isoform 1 mRNA, partial cds   | 0.005   |
| 1635   | U31850     | Human dystonin isoform 1 mRNA, partial cds   | 0.005   |
| 1636   | X64615     | O.berteriana chloroplast ORF80 (exon 1 and 2) and ORF2280 sequences                                  | 0.005   |
| 1637   | X52647     | E.coli dbpA gene for DEAD box protein A  | 0.005   |
| 1638   | D90773     | E.coli genomic DNA, Kohara clone #262(30.3-30.5 min.)  | 0.005   |
| 1639   | M62946     | S.glaucescens novel deletion/rearrangement sequence, partial sequence.                               | 0.005   |
| 1640   | M88597     | Saccharomyces cerevisiae STP1 gene, complete cds.  | 0.005   |
| 1641   | L31521     | Homo sapiens (clone HG52) Z-crystallin/quinone reductase (CRYZ) gene sequence.                       | 0.005   |
| 1642   | D79986     | Human mRNA for KIAA0164 gene, complete cds   | 0.004   |
| 1643   | AC002183   | Homo sapiens (subclone 2_h8 from BAC H111) DNA   | 0.004   |
| 1644   | Z29641     | Zea mays of USE gene encoding U3snRNA  | 0.004   |
| 1645   | L22415     | Homo sapiens DNA sequence, repeat region.  | 0.004   |
| 1646   | U17357     | Chlamydomonas reinhardtii chloroplast 30S ribosomal protein S4 (rps4) gene, complete cds.            | 0.004   |
| 1647   | M67465     | Rat 3-beta-hydroxysteroid dehydrogenase/delta-5-delta-4-ene-isomerase mRNA, complete cds.            | 0.004   |
| 1648   | U08421     | Murine rotavirus EC outer capsid protein VP4 gene,   | 0.004   |
| 1649   | Z17089     | H. sapiens (D3S1309) DNA segment containing  | 0.002   |
| 1650   | L35531     | Human Alu repeat region.   | 0.002   |
| 1651   | M55120     | Human cystic fibrosis transmembrane conductance regulator (CFTR) gene, exon 14b                      | 0.002   |
| 1652   | J00922     | Gallus gallus ovalbumin (Y) gene, complete cds.  | 0.002   |
| 1653   | U69695     | Mus musculus hyaluronan synthase homolog mRNA,   | 0.002   |
| 1654   | L15248     | Human (clone: pHyTM1/60(R)) DNA sequence.  | 0.002   |
| 1655   | L35676     | Homo sapiens (subclone H8_2_e7 from P1_35_H5_C8) DNA   | 0.002   |
| 1656   | L48612     | Theileria parva (clone pTprUgB) ORF genes, partial cds.  | 0.002   |
| 1657   | Y08925     | P.falciparum aarp3 gene, exon  | 0.002   |
| 1658   | M60441     | Sheep lambda immunoglobulin V gene.  | 0.002   |
| 1659   | X91857     | Piromyces sp. mRNA for mannanase A   | 0.002   |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION | DESCRIPTION   | P VALUE |
|--------|-----------|---|---------|
| 1660   | Z35948    | <i>S.cerevisiae</i> chromosome II reading frame ORF YBR079c   | 0.002   |
| 1661   | X16277    | Human gene for ornithine decarboxylase ODC (EC 4.1.1.17)  | 0.002   |
| 1662   | X78608    | <i>G.gallus</i> genomic DNA repeat region, clone 9C2  | 0.002   |
| 1663   | U48449    | Human skeletal muscle ryanodine receptor gene   | 0.002   |
| 1664   | X51875    | Human breakpoint in translocation V-kappa gene region (WB) (partial) (537 bp)   | 0.002   |
| 1665   | Z24205    | <i>H. sapiens</i> (D12S348) DNA segment containing  | 0.002   |
| 1666   | U85612    | <i>Mus musculus</i> cartilage-derived retinoic acid-sensitive protein/melanoma inhibitory activity protein gene, complete | 0.002   |
| 1667   | M61829    | Human alpha-1,3-mannosyl-glycoprotein beta-1, 2-N-acetylglucosaminyltransferase (MGAT) gene, complete cds.                | 0.002   |
| 1668   | M61829    | Human alpha-1,3-mannosyl-glycoprotein beta-1, 2-N-acetylglucosaminyltransferase (MGAT) gene, complete cds.                | 0.002   |
| 1669   | V00571    | Human gene encoding prepro form of corticotropin releasing  | 0.002   |
| 1670   | D29760    | <i>Candida maltosa</i> gene for chitin synthase 1, partial sequence   | 0.002   |
| 1671   | AJ001817  | <i>Dama</i> sp. mRNA for bone morphogenetic protein 2   | 0.002   |
| 1672   | Z23575    | <i>H. sapiens</i> (D17S926) DNA segment containing  | 0.002   |
| 1673   | X59359    | <i>T.marmorata</i> mRNA for acetylcholinesterase  | 0.002   |
| 1674   | D12519    | Rat SAP gene for synaptotagmin associated 35kDa protein   | 0.002   |
| 1675   | U88534    | <i>Mus musculus</i> glucose-6-phosphate dehydrogenase protein, exons 10, 11 and partial cds                               | 0.002   |
| 1676   | Z24391    | <i>H. sapiens</i> (D11S1350) DNA segment containing   | 0.002   |
| 1677   | M31773    | Murine B cell 1 (mb-1) gene, complete cds.  | 0.002   |
| 1678   | U28014    | Human cysteine protease (ICERel-II) mRNA, complete cds.   | 0.002   |
| 1679   | M33518    | Human HLA-B-associated transcript 2 (BAT2) gene, 3' end.  | 0.002   |
| 1680   | U70983    | <i>Pseudomonas aeruginosa</i> heptosyl transferase II   | 0.002   |
| 1681   | Z74854    | <i>S.cerevisiae</i> chromosome XV reading frame ORF YOL112w   | 0.002   |
| 1682   | M13498    | Mouse renal kallikrein gene mGK-6, exon 1   | 0.002   |
| 1683   | U17382    | <i>Streptococcus pyogenes</i> putative multiple membrane domain protein gene, complete cds.                               | 0.002   |
| 1684   | U14189    | <i>Plasmodium falciparum</i> MCP1 mRNA, complete cds  | 0.001   |
| 1685   | M27314    | <i>Saccharomyces cerevisiae</i> mitochondrial petite mutant BB5 origin of replication DNA.                                | 0.001   |
| 1686   | M64089    | <i>Dictyostelium discoideum</i> calmodulin (calA) gene, complete  | 0.001   |
| 1687   | J05138    | Rabbit calcium binding protein (calreticulin) mRNA,   | 0.0009  |
| 1688   | U92017    | Human clone 199288 defective mariner transposon Hsmar2 mRNA sequence  | 0.0008  |
| 1689   | AJ011915  | <i>Homo sapiens</i> mRNA for synaptosome associated protein of 23 kilodaltons, isoform A                                  | 0.0008  |
| 1690   | AJ223734  | <i>Sus scrofa</i> SCAMP1 gene, exon 1 and joined CDS  | 0.0008  |
| 1691   | Y08924    | <i>P.falciparum</i> mRNA for AARP2 protein  | 0.0006  |
| 1692   | X58139    | Human coxVIb gene, last exon and flanking sequence  | 0.0006  |
| 1693   | U47853    | <i>Araneus diadematus</i> fibroin-1 (ADF-1) mRNA, partial cds   | 0.0006  |
| 1694   | L34027    | <i>Plasmodium falciparum</i> (clone Dd2) heat shock protein 86 gene, complete cds.  | 0.0006  |
| 1695   | D88271    | Human (lambda) DNA for immunoglobulin light chain   | 0.0006  |
| 1696   | AC001546  | <i>Homo sapiens</i> (subclone 2 b1 from P1 H69) DNA sequence  | 0.0006  |
| 1697   | Z96325    | <i>H.sapiens</i> telomeric DNA sequence, clone 16QTEL024, read 16QTELOO024.seq  | 0.0006  |
| 1698   | U14974    | <i>Saccharomyces cerevisiae</i> Nmd2p (NMD2) gene, complete cds. > :: gb I70400 I70400 Sequence 1 from patent US          | 0.0006  |
| 1699   | AB002331  | Human mRNA for KIAA0333 gene, partial cds   | 0.0006  |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION   | P VALUE |
|--------|-------------|---|---------|
| 1700   | AE000464    | Escherichia coli K-12 MG1655 section 354 of 400 of the complete genome  | 0.0006  |
| 1701   | Z79060      | H.sapiens flow-sorted chromosome 6 HindIII fragment,  | 0.0005  |
| 1702   | Z60233      | H.sapiens CpG island DNA genomic MseI fragment, clone 197c9, reverse read cpg197c9.rt1a   | 0.0005  |
| 1703   | U15018      | Dugbe virus L protein gene, complete cds  | 0.0005  |
| 1704   | X77607      | H. sapiens genomic DNA (leukocyte), corresponding to the integration site of HPV 6a DNA in a tonsillar carcinoma  | 0.0005  |
| 1705   | M59428      | T.thermophila ribosomal protein L37 (L37) mRNA,   | 0.0005  |
| 1706   | M59428      | T.thermophila ribosomal protein L37 (L37) mRNA,   | 0.0005  |
| 1707   | AC002219    | Homo sapiens (subclone 2_d11 from P1 H43) DNA   | 0.0005  |
| 1708   | X95276      | P.falciparum complete gene map of plastid-like DNA (IR-B)   | 0.0005  |
| 1709   | L18972      | Homo sapiens anonymous gene, complete cds   | 0.0005  |
| 1710   | U96974      | Homo sapiens MET proto-oncogene, intron 5, 3' end   | 0.0005  |
| 1711   | Z60916      | H.sapiens CpG island DNA genomic MseI fragment, clone 39a5, forward read cpg39a5.ft1c   | 0.0005  |
| 1712   | X99587      | A.brasilense ipdC, gltX & cysS genes  | 0.0005  |
| 1713   | J03998      | P.falciparum glutamic acid-rich protein gnen, complete cds.   | 0.0005  |
| 1714   | AE000464    | Escherichia coli K-12 MG1655 section 354 of 400 of the complete genome  | 0.0005  |
| 1715   | U21730      | Human 5'-nucleotidase (CD73) gene, partial cds.   | 0.0004  |
| 1716   | M22970      | Human pancreatic phospholipase A-2 (PLA-2) gene, exons 1  | 0.0003  |
| 1717   | U37022      | Human cyclin-dependent kinase 4 (CDK4) gene, complete   | 0.0002  |
| 1718   | AC001517    | Homo sapiens (subclone 1_g5 from P1 H49) DNA sequence   | 0.0002  |
| 1719   | X90383      | A.thaliana DNA for Y13 gene   | 0.0002  |
| 1720   | NM_003407.1 | Homo sapiens zinc finger protein homologous to Zfp-36 in mouse (ZFP36) mRNA > :: gb M92843 HUMG0S24A  | 0.0002  |
| 1721   | M86528      | Human neurotrophin-4 (NT-4) gene, complete cds.   | 0.0002  |
| 1722   | M86528      | Human neurotrophin-4 (NT-4) gene, complete cds.   | 0.0002  |
| 1723   | U19241      | Homo sapiens interferon-gamma receptor alpha chain gene,  | 0.0002  |
| 1724   | M15205      | Human thymidine kinase gene, complete cds, with clustered Alu repeats in the introns.   | 0.0002  |
| 1725   | M87510      | Mouse Y specific region of AC11 DNA sequence, LINE repeat and Bkm satellite.  | 0.0002  |
| 1726   | Z84723      | Human DNA sequence from phage LAW2 from a contig from the tip of the short arm of chromosome 16, spanning 2Mb of 16p13.3 Contains Interleukin 9 receptor pseudogene | 0.0002  |
| 1727   | X01392      | Human apolipoprotein CIII gene and apo AI-apo CIII  | 0.0002  |
| 1728   | Z92910      | H.sapiens HFE (HLA-H) gene  | 0.0002  |
| 1729   | D87001      | Human (lambda) DNA for immunoglobulin light chain   | 0.0002  |
| 1730   | M35612      | Yeast (S.cerevisiae) mitochondrial autonomously replicating sequence DNA.   | 0.0002  |
| 1731   | Z16956      | H. sapiens (D2S154) DNA segment containing  | 0.0002  |
| 1732   | L42456      | Mus musculus TGF-1 gene, promoter region and exon 1.  | 0.0002  |
| 1733   | X90383      | A.thaliana DNA for Y13 gene   | 0.0002  |
| 1734   | L35657      | Homo sapiens (subclone H8 5_a10 from P1 35 H5 C8) DNA   | 0.0002  |
| 1735   | M57902      | Mouse transforming growth factor-beta-1   | 0.0002  |
| 1736   | U67167      | Homo sapiens intestinal mucin (MUC2) gene, promoter region and partial cds  | 0.0002  |
| 1737   | NM_002824.1 | Homo sapiens parathyrosin (PTMS) mRNA > :: gb M24398 HUMTHYP Human parathyrosin mRNA,   | 0.0002  |
| 1738   | J05138      | Rabbit calcium binding protein (calreticulin) mRNA,   | 0.0002  |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION | DESCRIPTION   | P VALUE |
|--------|-----------|---|---------|
| 1739   | U96566    | HIV-1 patient JO population variant JOS17 from USA, envelope glycoprotein, C2-V5 region (env) gene, partial cds | 0.0002  |
| 1740   | AF043461  | Homo sapiens I-REL gene, exon 9   | 9e-005  |
| 1741   | M96943    | Human profilaggrin gene exons 1-3, 5' end.  | 8e-005  |
| 1742   | S45332    | erythropoietin receptor [human, placental, Genomic, 8647  | 7e-005  |
| 1743   | S45332    | erythropoietin receptor [human, placental, Genomic, 8647  | 7e-005  |
| 1744   | L28125    | Podospora anserina beta transducin-like protein   | 7e-005  |
| 1745   | U53017    | Human microsatellite marker sJCW13  | 6e-005  |
| 1746   | M86528    | Human neurotrophin-4 (NT-4) gene, complete cds.   | 6e-005  |
| 1747   | D17554    | Human mRNA for DNA-binding protein, TAXREB107,  | 6e-005  |
| 1748   | U26556    | Human ferritin H (FTHL13) pseudogene.   | 6e-005  |
| 1749   | Z79060    | H.sapiens flow-sorted chromosome 6 HindIII fragment,  | 6e-005  |
| 1750   | AC001460  | Homo sapiens (subclone 2 f4 from BAC H107) DNA  | 6e-005  |
| 1751   | AC001033  | Homo sapiens (subclone 2 c2 from P1 H48) DNA sequence   | 6e-005  |
| 1752   | AF007883  | Homo sapiens MHC class II HLA-DRB1 (HLA-DRB1*10) intron 1 sequence  | 6e-005  |
| 1753   | U12971    | Tetrahymena thermophila CU428.IVII micronuclear M   | 6e-005  |
| 1754   | X83872    | H.vulgaris mRNA for cAMP response element binding   | 6e-005  |
| 1755   | Z73360    | Human DNA sequence from cosmid 92M18, BRCA2 gene region chromosome 13q12-13                                     | 5e-005  |
| 1756   | X85116    | H.sapiens epb72 gene exon 1   | 5e-005  |
| 1757   | L81639    | Homo sapiens (subclone 2 b2 from P1 H39) DNA sequence   | 3e-005  |
| 1758   | D16184    | Chicken mRNA for nuclear b-Zip protein Maff, complete   | 3e-005  |
| 1759   | AF100694  | Mus musculus Pontin52 mRNA, complete cds  | 3e-005  |
| 1760   | Z30978    | G.gorilla DNA for Mhc Alu elements  | 3e-005  |
| 1761   | L23429    | Canis beta-galactosides-binding lectin (LGALS3) mRNA,   | 2e-005  |
| 1762   | X06559    | Human interferon-inducible gene IFI-56K 5' region (56 kDa coding capacity of unknown function)                  | 2e-005  |
| 1763   | AC001546  | Homo sapiens (subclone 2 b1 from P1 H69) DNA sequence   | 2e-005  |
| 1764   | L35658    | Homo sapiens (subclone H8 9 d12 from P1 35 H5 C8)   | 2e-005  |
| 1765   | D16472    | Human mRNA, Xq terminal portion   | 2e-005  |
| 1766   | M83665    | Human high mobility group 2 protein (HMG-2) gene,   | 2e-005  |
| 1767   | U07977    | Human T cell receptor beta (TCRBV9S1, TCRBV7S1) genes, TCRBV inserted and TCRBV deleted haplotype,              | 2e-005  |
| 1768   | D83227    | Populus nigra gene for extensin like protein, complete cds  | 2e-005  |
| 1769   | U42053    | Mustela vison microsatellite repeat (Mvi 24).   | 2e-005  |
| 1770   | L29339    | Homo sapiens Na <sup>+</sup> /glucose cotransporter (SGLT1) gene, exon 15 and complete cds.                     | 2e-005  |
| 1771   | Z33620    | M.musculus (Balb/c) GATA-3 gene (partial)   | 2e-005  |
| 1772   | D88271    | Human (lambda) DNA for immunoglobulin light chain   | 2e-005  |
| 1773   | AD000833  | Homo sapiens DNA from chromosome 19-cosmid f19399 (~17 kb EcoRI restriction fragment)                           | 2e-005  |
| 1774   | U36755    | Human thrombin receptor (F2R) gene, 5' region and partial   | 2e-005  |
| 1775   | AC002252  | Homo sapiens (subclone 1 g7 from BAC H76) DNA   | 2e-005  |
| 1776   | AE000464  | Escherichia coli K-12 MG1655 section 354 of 400 of the complete genome  | 2e-005  |
| 1777   | X94768    | H.sapiens RP3 gene (XLRP gene 3)  | 1e-005  |
| 1778   | U57058    | Human WD protein IR10 pre-mRNA, partial cds   | 9e-006  |
| 1779   | AC001603  | Homo sapiens (subclone 2 a9 from PAC H92) DNA   | 8e-006  |
| 1780   | Z47046    | Human cosmid QLL2C9 from Xq28   | 7e-006  |
| 1781   | U93275    | Mus musculus glucokinase gene, 5' flanking region   | 7e-006  |
| 1782   | X60653    | human Histone H3.3 pseudogene (CIR-456)   | 7e-006  |
| 1783   | L81583    | Homo sapiens (subclone 3 g2 from P1 H11) DNA sequence   | 6e-006  |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION   | P VALUE |
|--------|-------------|---|---------|
| 1784   | L13381      | Plasmodium falciparum HB3\W2 transport protein  | 6e-006  |
| 1785   | U97576      | Homo sapiens TRE17 oncogene-associated G0S19-2/MIP1alpha gene, downstream sequence  | 6e-006  |
| 1786   | Y11204      | V.carteri gene encoding volvoxopsin   | 6e-006  |
| 1787   | Z16794      | H. sapiens (D4S409) DNA segment containing (CA) repeat; clone AFM183xd6; single read  | 6e-006  |
| 1788   | D83737      | Human coagulation factor XII gene, intron 2   | 6e-006  |
| 1789   | X04871      | Paramecium primaurelia macronuclear DNA telomeric   | 6e-006  |
| 1790   | M14292      | Human LIHeg repetitive element from the intergenic region of the epsilon and G-gamma globin genes.  | 6e-006  |
| 1791   | NM_003734.1 | Homo sapiens amine oxidase, copper containing 3 gb U39447 HSU39447 Human placenta copper monamine oxidase mRNA, complete cds                                  | 6e-006  |
| 1792   | M27147      | Human alpha-2-plasmin inhibitor, allele A, 5' end.  | 6e-006  |
| 1793   | X86012      | Human DNA sequence from intron 22 of the factor VIII gene, Xq28. Contains the end of a 9.5kb repeated region, int22h-1, involved in many cases of haemophilia | 6e-006  |
| 1794   | M33216      | Human aortic-type smooth muscle alpha-actin   | 3e-006  |
| 1795   | Z83334      | H.sapiens RPS3a gene  | 2e-006  |
| 1796   | M57682      | Rat brain calcium channel alpha-1 subunit mRNA, complete  | 2e-006  |
| 1797   | M19817      | Human apolipoprotein B-100 (apoB) gene, intron J.   | 2e-006  |
| 1798   | Z24068      | H. sapiens (D22S427) DNA segment containing   | 2e-006  |
| 1799   | Z50155      | X.laevis mRNA for insulin-like growth factor I receptor   | 2e-006  |
| 1800   | Y12839      | H.sapiens BH30 mRNA   | 2e-006  |
| 1801   | Z70041      | Human DNA sequence from cosmid U39H5, between markers DXS6791 and DXS8038 on chromosome X   | 2e-006  |
| 1802   | Z80128      | H.sapiens CACNL1A4 gene, exons 16 and 17  | 2e-006  |
| 1803   | U80893      | Mus musculus CAG trinucleotide repeat mRNA, partial   | 2e-006  |
| 1804   | Z63192      | H.sapiens CpG island DNA genomic MseI fragment, clone 7a7, forward read cpg7a7.ft1d   | 2e-006  |
| 1805   | U72964      | Human hepatocyte nuclear factor 4-alpha gene, exon 5  | 2e-006  |
| 1806   | AC002183    | Homo sapiens (subclone 2 h8 from BAC H111) DNA  | 2e-006  |
| 1807   | S73557      | annexin II=36 kDa calcium-dependent phospholipid-binding protein [rats, RBL-2H3 basophilic leukemia cells, mRNA,  | 2e-006  |
| 1808   | U79258      | Human clone 23732 mRNA, partial cds   | 8e-007  |
| 1809   | Z62146      | H.sapiens CpG island DNA genomic MseI fragment, clone 64b2, forward read cpg64b2.ft1a   | 8e-007  |
| 1810   | U44381      | Human tissue inhibitor of metalloproteinases-2  | 8e-007  |
| 1811   | Z65575      | H.sapiens CpG island DNA genomic MseI fragment, clone 47c5, reverse read cpg47c5.rt1a   | 7e-007  |
| 1812   | J03764      | Human, plasminogen activator inhibitor-1 gene, exons 2 to   | 7e-007  |
| 1813   | X75349      | H.sapiens 5'flanking DNA for clotting factor IX   | 7e-007  |
| 1814   | Z73360      | Human DNA sequence from cosmid 92M18, BRCA2 gene region chromosome 13q12-13   | 7e-007  |
| 1815   | Z73360      | Human DNA sequence from cosmid 92M18, BRCA2 gene region chromosome 13q12-13   | 7e-007  |
| 1816   | X77624      | H.sapiens simple sequence clone pg2m3, 5' flank and repeats   | 7e-007  |
| 1817   | S46857      | SCL/TCL5/tal-1=stem-cell leukemia {germline chromosome 3 translocation/deletion breakpoint} [human, bone marrow cells, Genomic Mutant, 239 nt]                | 7e-007  |
| 1818   | J03998      | P.falciparum glutamic acid-rich protein gnen, complete cds.   | 7e-007  |
| 1819   | AF012899    | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds   | 3e-007  |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION | DESCRIPTION  | P VALUE |
|--------|-----------|--|---------|
| 1820   | U47654    | Human pyruvate kinase PK-R gene, partial cds, and pyruvate kinase PK-L gene, complete cds.   | 3e-007  |
| 1821   | U78096    | Human macrophage colony stimulating factor receptor (c-fms) gene, exon 1A, 2 and partial cds   | 3e-007  |
| 1822   | L76927    | Human galactokinase (GALK1) gene, complete cds   | 3e-007  |
| 1823   | U22086    | Ursus americanus clone G10H GT and ATTT microsatellite   | 3e-007  |
| 1824   | J03069    | Human MYCL2 gene, complete cds.  | 3e-007  |
| 1825   | X82640    | D.melanogaster mRNA for alpha 1,2 mannosidase  | 3e-007  |
| 1826   | U18671    | Human Stat2 gene, complete cds.  | 2e-007  |
| 1827   | L02935    | Human major breakpoint cluster region (BCR) gene, exons 1-3 and repeat regions.  | 2e-007  |
| 1828   | L04193    | Human lens membrane protein (mp19) gene, exon 11.  | 2e-007  |
| 1829   | AC001050  | Homo sapiens (subclone 3_e9 from P1 H55) DNA sequence  | 2e-007  |
| 1830   | AF012899  | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds  | 2e-007  |
| 1831   | AF012899  | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds  | 9e-008  |
| 1832   | L78776    | Homo sapiens (subclone 2_a7 from P1 H49) DNA sequence  | 9e-008  |
| 1833   | U41315    | Human ring zinc-finger protein (ZNF127-Xp) gene and 5' flanking sequence.  | 9e-008  |
| 1834   | X95586    | H.sapiens MB1 gene   | 9e-008  |
| 1835   | M33387    | Human debrisoquine 4-hydroxylase (CYP2D8P) and   | 9e-008  |
| 1836   | U09954    | Human ribosomal protein L9 gene, 5' region and complete  | 8e-008  |
| 1837   | Z15030    | H.sapiens gene for ventricular myosin light chain 2 > :: gb L01652 HUMVMLC Human ventricular myosin light chain 2 gene, seven exons. | 8e-008  |
| 1838   | AF012899  | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds  | 8e-008  |
| 1839   | AF012899  | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds  | 8e-008  |
| 1840   | Z77974    | H.sapiens flow-sorted chromosome 6 HindIII fragment,   | 8e-008  |
| 1841   | AF012899  | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds  | 8e-008  |
| 1842   | L81802    | Homo sapiens (subclone 1_c12 from P1 H31) DNA  | 8e-008  |
| 1843   | D87001    | Human (lambda) DNA for immunoglobulin light chain  | 8e-008  |
| 1844   | Z23971    | H. sapiens (D2S338) DNA segment containing (CA) repeat; clone AFM276zf5; single read   | 8e-008  |
| 1845   | X89398    | H.sapiens ung gene for uracil DNA-glycosylase  | 3e-008  |
| 1846   | Z68212    | Phocine Herpesvirus 1 DNA (clone 4; 280 bp)  | 3e-008  |
| 1847   | M85145    | Human tumor necrosis factor receptor, 3' flank.  | 3e-008  |
| 1848   | M17919    | Human DNA with homology to EBV IR3 repeat, clone Hu3.  | 3e-008  |
| 1849   | M21339    | Human non-histone chromosomal protein HMG-14 gene, complete cds.   | 3e-008  |
| 1850   | Z69655    | Human DNA sequence from cosmid L98A6, Huntington's Disease Region, chromosome 4p16.3   | 3e-008  |
| 1851   | S83526    | red photopigment gene {Alu repeat region, long intron 1} [human, peripheral blood leucocytes, Genomic, 1987 nt]                      | 3e-008  |
| 1852   | M11809    | Human (2'-5') oligo A synthetase E gene, exon 7 and flanks.  | 3e-008  |
| 1853   | X94768    | H.sapiens RP3 gene (XLRP gene 3)   | 3e-008  |
| 1854   | X62025    | H.sapiens rod cG-PDE G gene for 3', 5'-cyclic nucleotide phosphodiesterase   | 3e-008  |



Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION   | P VALUE |
|--------|-------------|---|---------|
| 1855   | NM_000694.1 | Homo sapiens aldehyde dehydrogenase 7 (ALDH7) mRNA > :: gb U10868 HSU10868 Human aldehyde dehydrogenase ALDH7 mRNA, complete cds. | 3e-008  |
| 1856   | U22086      | Ursus americanus clone G10H GT and ATTT microsatellite  | 3e-008  |
| 1857   | AC001174    | Homo sapiens (subclone 1_e2 from BAC H94) DNA   | 3e-008  |
| 1858   | X69908      | H.sapiens gene for mitochondrial ATP synthase c subunit   | 2e-008  |
| 1859   | X91233      | H.sapiens IL15 gene   | 2e-008  |
| 1860   | M61835      | Human lactase phlorizin hydrolase (LCT) gene, exon 2.   | 1e-008  |
| 1861   | M29324      | Mouse LIMd-A13 repetitive sequence.   | 1e-008  |
| 1862   | AF021806    | Rattus norvegicus connexin 40 (GJA5) mRNA, complete cds   | 1e-008  |
| 1863   | AB002584    | Rattus norvegicus mRNA for beta-alanine-pyruvate aminotransferase, complete cds   | 1e-008  |
| 1864   | Z54147      | Human DNA sequence from cosmid L129H7, Huntington's Disease Region, chromosome 4p16.3 contains CpG island                         | 9e-009  |
| 1865   | AF012899    | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds   | 9e-009  |
| 1866   | Z54349      | H.sapiens MN/CA9 GENE   | 8e-009  |
| 1867   | M21487      | Human muscle creatine kinase gene (CKMM), 5' flank.   | 3e-009  |
| 1868   | U02993      | Human cytochrome P450 (Cyp1A2) gene, 5' region.   | 3e-009  |
| 1869   | Z78893      | H.sapiens flow-sorted chromosome 6 HindIII fragment,  | 3e-009  |
| 1870   | U89387      | Human RNA polymerase II subunit hsRPB4 gene, complete   | 3e-009  |
| 1871   | X57413      | Mouse mRNA for transforming growth factor-beta2   | 3e-009  |
| 1872   | Z94828      | G.gallus microsatellite DNA (LEI0260  | 3e-009  |
| 1873   | D26067      | Human mRNA for KIAA0033 gene, partial cds   | 3e-009  |
| 1874   | AB001914    | Homo sapiens PACE4 gene, exon 23-25, complete cds   | 3e-009  |
| 1875   | Z75894      | Human DNA sequence from cosmid U61F10, between markers DXS366 and DXS87 on chromosome X contains                                  | 3e-009  |
| 1876   | AC001443    | Homo sapiens (subclone 2_f10 from BAC 2913  | 3e-009  |
| 1877   | M96851      | Human CpG island containing upstream sequence   | 3e-009  |
| 1878   | D64108      | Human mRNA for DMC1 homologue, complete cds   | 3e-009  |
| 1879   | S80861      | {junction region} [human, KOPT-K1 cells, T-cell acute lymphoblastic leukemia patient, Genomic, 895 nt]                            | 3e-009  |
| 1880   | U79776      | Mus musculus ajuba (Ajuba) mRNA, complete cds   | 2e-009  |
| 1881   | S75283      | thyrotropin-releasing hormone receptor [human, Genomic, 2312 nt, segment 2 of 2]  | 1e-009  |
| 1882   | X14445      | Human int-2 proto-oncogene  | 1e-009  |
| 1883   | J03764      | Human, plasminogen activator inhibitor-1 gene, exons 2 to   | 1e-009  |
| 1884   | L36911      | Pig microsatellite DNA (CA repeat)  | 1e-009  |
| 1885   | U79746      | Homo sapiens serotonin transporter (hSERT) gene, promoter region, exons 1B and 2, and partial cds                                 | 9e-010  |
| 1886   | X56668      | Human DNA for calretinin exon 1   | 9e-010  |
| 1887   | AF012899    | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds   | 9e-010  |
| 1888   | X77738      | H.sapiens red cell anion exchanger (EPB3, AE1, Band 3) gene, 3' region  | 4e-010  |
| 1889   | L02897      | Dog nonerythroid beta-spectrin mRNA, 3' end.  | 3e-010  |
| 1890   | D45198      | Human mRNA for template activating factor-I alpha,  | 3e-010  |
| 1891   | X04981      | H.sapiens gene for lecithin-cholesterol acyltransferase   | 3e-010  |
| 1892   | M14292      | Human L1Heg repetitive element from the intergenic region of the epsilon and G-gamma globin genes.                                | 3e-010  |
| 1893   | X14448      | Human GLA gene for alpha-D-galactosidase A (EC  | 3e-010  |
| 1894   | Z96616      | H.sapiens telomeric DNA sequence, clone 4QTELO25, read 4QTELOO025.seq   | 3e-010  |



Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION | DESCRIPTION   | P VALUE |
|--------|-----------|---|---------|
| 1895   | M12901    | Human c-mos pseudogene with Alu repeat insertions, partial  | 2e-010  |
| 1896   | Z68885    | Human DNA sequence from cosmid L21F12B, Huntington's Disease Region, chromosome 4p16.3, contains EST      | 1e-010  |
| 1897   | L77036    | Homo sapiens (subclone 5_d9 from P1 H19) DNA  | 1e-010  |
| 1898   | Z58927    | H.sapiens CpG island DNA genomic MseI fragment, clone 116g2, reverse read cpg116g2.rt1a                   | 1e-010  |
| 1899   | L77036    | Homo sapiens (subclone 5_d9 from P1 H19) DNA  | 1e-010  |
| 1900   | Z79007    | H.sapiens flow-sorted chromosome 6 HindIII fragment,  | 1e-010  |
| 1901   | Z75891    | Human DNA sequence from cosmid F45C1 on chromosome  | 1e-010  |
| 1902   | Z72930    | S.cerevisiae chromosome VII reading frame ORF YGR145w   | 1e-010  |
| 1903   | Z36111    | S.cerevisiae chromosome II reading frame ORF YBR242w  | 5e-011  |
| 1904   | Z54147    | Human DNA sequence from cosmid L129H7, Huntington's Disease Region, chromosome 4p16.3 contains CpG island | 4e-011  |
| 1905   | X87579    | H.sapiens CD4 gene  | 4e-011  |
| 1906   | U43604    | Human unidentified mRNA, partial sequence.  | 4e-011  |
| 1907   | U08024    | Human clone A dehydroepiandrosterone sulfotransferase (STD) mRNA, complete cds.                           | 4e-011  |
| 1908   | M27825    | B.lactucaea heat shock protein 70 (hsp70) gene, complete  | 4e-011  |
| 1909   | Z15026    | H.sapiens genes for tumor necrosis factor (Tnfa) and lymphotoxine (Tnfb)                                  | 3e-011  |
| 1910   | Z67997    | Human DNA sequence from cosmid L206D7, Huntington's Disease Region, chromosome 4p16.3                     | 3e-011  |
| 1911   | AC001046  | Homo sapiens (subclone 3_f2 from P1 H54) DNA sequence   | 2e-011  |
| 1912   | Z84518    | H.sapiens flow-sorted chromosome 6 HindIII fragment,  | 1e-011  |
| 1913   | M59709    | Human carcinoembryonic antigen (CEA) gene, exon 10.   | 1e-011  |
| 1914   | L35670    | Homo sapiens (subclone H8_10_g5 from P1 35 H5 C8) DNA   | 1e-011  |
| 1915   | AF012899  | Sambucus nigra ribosome inactivating protein precursor mRNA, complete cds                                 | 1e-011  |
| 1916   | Z96209    | H.sapiens telomeric DNA sequence, clone 12PTEL055, read 12PTELOO055.seq                                   | 1e-011  |
| 1917   | U34052    | Human Down Syndrome region of chromosome 21, genomic sequence, clone A35A7-1A2.                           | 1e-011  |
| 1918   | Z96489    | H.sapiens telomeric DNA sequence, clone 21QTEL007, read 21QTELOO007.seq                                   | 1e-011  |
| 1919   | AC001036  | Homo sapiens (subclone 2_f7 from P1 H48) DNA sequence   | 1e-011  |
| 1920   | L42098    | Homo sapiens (subclone 5_c7 from P1 H22) DNA sequence.  | 6e-012  |
| 1921   | X93341    | H.sapiens mitochondrial control region DNA  | 5e-012  |
| 1922   | D26141    | Human NF1 gene homologue  | 4e-012  |
| 1923   | U80228    | Human clotting factor VIII gene, intron 20 and exon 21, partial sequence                                  | 4e-012  |
| 1924   | U16812    | Human Bak-2 gene, complete cds.   | 4e-012  |
| 1925   | Z68758    | Human DNA sequence from cosmid cN85E10 on chromosome 22q11.2-qter   | 4e-012  |
| 1926   | AC001449  | Homo sapiens (subclone 2_f10 from P1 H103) DNA  | 4e-012  |
| 1927   | D50561    | Human DNA, replication enhancing element (REE1)   | 4e-012  |
| 1928   | Z96387    | H.sapiens telomeric DNA sequence, clone 18PTEL033, read 18PTELOO033.seq                                   | 1e-012  |
| 1929   | AF004338  | Homo sapiens 16S ribosomal RNA, mitochondrial gene, partial sequence                                      | 1e-012  |
| 1930   | M15360    | Human transposon-like element (THE) p2 solo LTR with inserted Alu element.                                | 1e-012  |
| 1931   | L81577    | Homo sapiens (subclone 3_h8 from P1 H11) DNA sequence   | 1e-012  |
| 1932   | U56979    | Human complement factor H precursor (Cfh) gene, partial   | 1e-012  |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION   | P VALUE |
|--------|-------------|---|---------|
| 1933   | U14550      | Human sialyltransferase STHM (sthm) mRNA, complete cds.   | 1e-012  |
| 1934   | M31061      | Human ornithine decarboxylase gene, complete cds.   | 1e-012  |
| 1935   | U06752      | Rattus norvegicus Fisher 344 pre-sialomucin complex (pSMC) mRNA, repeat sequences 10-14, partial cds.   | 1e-012  |
| 1936   | U06752      | Rattus norvegicus Fisher 344 pre-sialomucin complex (pSMC) mRNA, repeat sequences 10-14, partial cds.   | 1e-012  |
| 1937   | L29096      | Homo sapiens oriP binding protein (OBP-2) mRNA,   | 1e-012  |
| 1938   | U50156      | Human DNA segment containing CA repeat at locus   | 5e-013  |
| 1939   | X65708      | H.sapiens RRM1 gene for ribonucleoside diphosphate reductase M1 subunit   | 5e-013  |
| 1940   | M61107      | Human p22-phox (CYBA) gene, exons 3 and 4.  | 5e-013  |
| 1941   | AC001502    | Homo sapiens (subclone 2_c7 from P1 H43) DNA sequence   | 4e-013  |
| 1942   | X69951      | H.sapiens gene for casein kinase II alpha subunit > subunit alpha [human, Genomic, 18862 nt]  | 4e-013  |
| 1943   | AC002252    | Homo sapiens (subclone 1_g7 from BAC H76) DNA   | 4e-013  |
| 1944   | Z74029      | Caenorhabditis elegans cosmid C45B11, complete sequence [Caenorhabditis elegans]  | 4e-013  |
| 1945   | U90544      | Human sodium phosphate transporter (NPT3) mRNA,   | 4e-013  |
| 1946   | L77032      | Homo sapiens (subclone 3_e5 from P1 H16) DNA sequence.  | 2e-013  |
| 1947   | X55367      | Human alpha-satellite DNA from clone pTRA-2   | 2e-013  |
| 1948   | U40369      | Human spermidine/spermine N1-acetyltransferase  | 2e-013  |
| 1949   | Z25749      | H.sapiens gene for ribosomal protein S7   | 2e-013  |
| 1950   | M96838      | Human proteinase 3 gene, exons 2 and 3.   | 2e-013  |
| 1951   | Z73116      | S.cerevisiae chromosome XII reading frame ORF YLL011w   | 2e-013  |
| 1952   | U90544      | Human sodium phosphate transporter (NPT3) mRNA,   | 2e-013  |
| 1953   | U90544      | Human sodium phosphate transporter (NPT3) mRNA,   | 2e-013  |
| 1954   | AC001016    | Homo sapiens (subclone 2_f8 from P1 H43) DNA sequence   | 1e-013  |
| 1955   | D00596      | Homo sapiens gene for thymidylate synthase, exons 1, 2, 3, 4, 5, 6, 7, complete cds   | 1e-013  |
| 1956   | X80240      | H.sapiens endogenous retrovirus HERV-KC4 DNA  | 1e-013  |
| 1957   | M86181      | Human prosaposin (PSAP) gene.   | 5e-014  |
| 1958   | V00710      | Human mitochondrial genes for several tRNAs (Phe, Val, Leu) and 12S and 16S ribosomal RNAs  | 5e-014  |
| 1959   | Z62151      | H.sapiens CpG island DNA genomic MseI fragment, clone 64c7, forward read cpg64c7.fl1a   | 5e-014  |
| 1960   | NM_002187.1 | Homo sapiens interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40) (IL12B) mRNA > :: gb M65290 HUMNKSFP40 Human natural killer cell stimulatory factor (NKSF) mRNA, | 5e-014  |
| 1961   | M18680      | Homo sapiens 5S rRNA pseudogene.  | 5e-014  |
| 1962   | X06274      | Human endogenous retrovirus-like sequence (LTR ERS-P1-1) 3'-LTR region  | 5e-014  |
| 1963   | D00835      | Human immunodeficiency virus type 2 proviral DNA, complete genome   | 5e-014  |
| 1964   | V00581      | Human Alu repetitive sequence located near the insulin gene > :: gb J00268 HUMINS02 Human insulin gene: repetitive sequence in 3' flank.  | 5e-014  |
| 1965   | Z95437      | Human DNA sequence from cosmid A1 on chromosome 6 contains ESTs. HERV like retroviral sequence  | 5e-014  |
| 1966   | AB001051    | Dugesia japonica mRNA for ADP-ribosylation factor,  | 5e-014  |
| 1967   | AB001051    | Dugesia japonica mRNA for ADP-ribosylation factor,  | 5e-014  |
| 1968   | M59709      | Human carcinoembryonic antigen (CEA) gene, exon 10.   | 2e-014  |
| 1969   | X91233      | H.sapiens IL15 gene   | 2e-014  |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION | DESCRIPTION  | P VALUE |
|--------|-----------|--|---------|
| 1970   | X12718    | Human Retrovirus mRNA for LTR (clone cPB-3)  | 2e-014  |
| 1971   | V00531    | Human interferon genes LeIF-L and LeIF-J and pseudogene LeIF-M with intergenic regions. These genes are located on | 1e-014  |
| 1972   | M14292    | Human L1Heg repetitive element from the intergenic region of the epsilon and G-gamma globin genes.                 | 1e-014  |
| 1973   | X56998    | Human UbA52 adrenal mRNA for ubiquitin-52 amino acid fusion protein  | 1e-014  |
| 1974   | S74906    | E1 beta=pyruvate dehydrogenase beta {promoter}   | 8e-015  |
| 1975   | M18680    | Homo sapiens 5S rRNA pseudogene.   | 6e-015  |
| 1976   | L49046    | Homo sapiens (subclone 2 h3 from P1 H25) DNA sequence.   | 6e-015  |
| 1977   | M18680    | Homo sapiens 5S rRNA pseudogene.   | 6e-015  |
| 1978   | U93037    | Homo sapiens elastin gene, exons 5-27 and alternatively spliced products, partial cds                              | 6e-015  |
| 1979   | M76741    | Homo sapiens biliary glycoprotein (BGP) gene, partial cds.   | 6e-015  |
| 1980   | U72787    | Homo sapiens cosmid clone U163C11 from Xp22.1-22.2, complete sequence [Homo sapiens]                               | 6e-015  |
| 1981   | AB000931  | Homo sapiens FUT2 gene, intron 1, complete sequence  | 6e-015  |
| 1982   | M83137    | Human scaffold-attached region (SAR) DNA.  | 6e-015  |
| 1983   | M18680    | Homo sapiens 5S rRNA pseudogene.   | 5e-015  |
| 1984   | Z63454    | H.sapiens CpG island DNA genomic MseI fragment, clone 84d2, reverse read cpg84d2.rt1a                              | 5e-015  |
| 1985   | Z63454    | H.sapiens CpG island DNA genomic MseI fragment, clone 84d2, reverse read cpg84d2.rt1a                              | 5e-015  |
| 1986   | X97489    | H.sapiens PIT1/GHF1 gene silencer region   | 5e-015  |
| 1987   | X55367    | Human alpha-satellite DNA from clone pTRA-2  | 2e-015  |
| 1988   | Z22795    | H.sapiens microsatellite repeat  | 2e-015  |
| 1989   | D38112    | Human mitochondrial DNA, complete sequence   | 2e-015  |
| 1990   | X69951    | H.sapiens gene for casein kinase II alpha subunit subunit alpha [human, Genomic, 18862 nt]                         | 2e-015  |
| 1991   | M59250    | Homo sapiens cytochrome c oxidase subunit Vb   | 2e-015  |
| 1992   | X15965    | Rabbit DNA for L1Oc5 repeat  | 2e-015  |
| 1993   | X70052    | S.cerevisiae sof1 gene   | 2e-015  |
| 1994   | M86667    | H.sapiens NAP (nucleosome assembly protein) mRNA,  | 1e-015  |
| 1995   | X78212    | H.sapiens diamine oxidase gene   | 7e-016  |
| 1996   | U21928    | Human fructose-1,6-biphosphatase (FBP1) gene, exon 4   | 7e-016  |
| 1997   | AB001051  | Dugesia japonica mRNA for ADP-ribosylation factor,   | 7e-016  |
| 1998   | AC002181  | Homo sapiens (subclone 2 a12 from BAC H111) DNA  | 6e-016  |
| 1999   | X91413    | H.sapiens DNA for X-linked dinucleotide repeat polymorphism (clone YCA3CL149)                                      | 6e-016  |
| 2000   | U65487    | Human ribosomal RNA upstream binding transcription factor (UBTF) gene, partial cds                                 | 6e-016  |
| 2001   | Z69920    | Human DNA sequence from cosmid 91K3, Huntington's Disease Region, chromosome 4p16.3                                | 6e-016  |
| 2002   | U92818    | Homo sapiens c33.28 unnamed HERV-H protein mRNA,   | 6e-016  |
| 2003   | J03799    | Human colin carcinoma laminin-binding protein mRNA,  | 3e-016  |
| 2004   | Z68885    | Human DNA sequence from cosmid L21F12B, Huntington's Disease Region, chromosome 4p16.3, contains EST               | 2e-016  |
| 2005   | U75285    | Homo sapiens apoptosis inhibitor survivin gene, complete   | 2e-016  |
| 2006   | M23442    | Human interleukin 4 (IL-4) gene, complete cds.   | 2e-016  |
| 2007   | U18270    | Human thymopoietin (TMPO) gene, exons 4 and 5, and complete cds for thymopoietin alpha                             | 2e-016  |
| 2008   | AD000833  | Homo sapiens DNA from chromosome 19-cosmid f19399 (~17 kb EcoRI restriction fragment)                              | 2e-016  |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION   | P VALUE |
|--------|-------------|---|---------|
| 2009   | AD000833    | Homo sapiens DNA from chromosome 19-cosmid f19399 (~17 kb EcoRI restriction fragment)   | 2e-016  |
| 2010   | Y14823      | Drosophila melanogaster SURF-4 gene and gene encoding seryl-tRNA synthetase   | 2e-016  |
| 2011   | U67167      | Homo sapiens intestinal mucin (MUC2) gene, promoter region and partial cds  | 8e-017  |
| 2012   | Z96177      | H.sapiens telomeric DNA sequence, clone 10QTEL040, read 10QTELOO040.seq   | 7e-017  |
| 2013   | AF003533    | Homo sapiens cytosolic phagocyte oxidase protein (p47phox) gene, promoter region and partial cds  | 7e-017  |
| 2014   | NM_000151.1 | Homo sapiens glucose-6-phosphatase, catalytic glucose-6-phosphatase mRNA, complete cds. > :: gb I15157 I15157 Sequence 1 from patent US 5460942 | 7e-017  |
| 2015   | X94912      | H.sapiens Pr22 gene   | 7e-017  |
| 2016   | U10580      | Human junction sequence from chimeric/rearranged YAC yRM2252, chromosome 11p14.   | 7e-017  |
| 2017   | M22970      | Human pancreatic phospholipase A-2 (PLA-2) gene, exons 1  | 7e-017  |
| 2018   | X02152      | Human mRNA for lactate dehydrogenase-A (LDH-A, EC   | 6e-017  |
| 2019   | Z68755      | Human DNA sequence from cosmid L118D5, Huntington's Disease Region, chromosome 4p16.3   | 6e-017  |
| 2020   | M64804      | Human microsatellite DNA repeat region DNA. > :: gb I31115 I31115 Sequence 27 from patent US 5582979  | 3e-017  |
| 2021   | Z92910      | H.sapiens HFE (HLA-H) gene  | 3e-017  |
| 2022   | X74984      | H.sapiens 5' flanking region of CD14 gene   | 2e-017  |
| 2023   | U05333      | Mus musculus co-chaperonin 'cofactor A' mRNA, complete  | 2e-017  |
| 2024   | U48485      | Human skeletal muscle ryanodine receptor gene   | 2e-017  |
| 2025   | X97869      | H.sapiens gene encoding La autoantigen  | 2e-017  |
| 2026   | X17579      | Human specific HS5 DNA  | 2e-017  |
| 2027   | U36445      | Bos taurus calcium-activated chloride channel mRNA,   | 2e-017  |
| 2028   | L06845      | Human cysteinyl-tRNA synthetase mRNA, partial cds.  | 2e-017  |
| 2029   | X93334      | H.sapiens mitochondrial DNA, complete genome  | 8e-018  |
| 2030   | X62996      | H.sapiens mitochondrial genome (consensus sequence)   | 8e-018  |
| 2031   | M98479      | Human transglutaminase mRNA, 3' untranslated region.  | 8e-018  |
| 2032   | L42568      | Homo sapiens (clone ISW11-1) non-gastric H,K-ATPase (ATP1A1) gene, exons 15-17  | 8e-018  |
| 2033   | S52659      | lactoferrin {5' region, promoter} [human, placenta,   | 8e-018  |
| 2034   | U66707      | Rattus norvegicus densin-180 mRNA, complete cds   | 8e-018  |
| 2035   | X76683      | Plasmid vector pHM2 betalactamase gene  | 3e-018  |
| 2036   | U66707      | Rattus norvegicus densin-180 mRNA, complete cds   | 3e-018  |
| 2037   | D17201      | Human HepG2 3' region MboI cDNA, clone hmd3d04m3  | 3e-018  |
| 2038   | Z24281      | H. sapiens (D12S355) DNA segment containing   | 2e-018  |
| 2039   | AC001443    | Homo sapiens (subclone 2 f10 from BAC 2913  | 2e-018  |
| 2040   | U73522      | Homo sapiens AMSH mRNA, complete cds  | 1e-018  |
| 2041   | L77040      | Homo sapiens (subclone 8_c11 from P1 H22) DNA   | 9e-019  |
| 2042   | X93496      | H.sapiens TRAP gene, 5' flanking region   | 9e-019  |
| 2043   | X54816      | Human gene for alpha-1-microglobulin-bikunin, exons 1-5 (encoding alpha-1-microglobulin, N-terminus.)   | 9e-019  |
| 2044   | L35240      | Human enigma gene, complete cds   | 8e-019  |
| 2045   | Z46940      | H.sapiens PRM1 gene, PRM2 gene and TNP2 gene  | 8e-019  |
| 2046   | U60801.1    | Human poly(A)-binding protein (PABP) processed pseudogene2, complete cds  | 8e-019  |
| 2047   | NM_002484.1 | Homo sapiens nucleotide binding protein 1 Human nucleotide-binding protein mRNA, complete cds.  | 4e-019  |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 2048   | X76683      | Plasmid vector pHM2 betalactamase gene   | 3e-019  |
| 2049   | U40369      | Human spermidine/spermine N1-acetyltransferase   | 3e-019  |
| 2050   | D13624      | Human Wilms tumor gene encoding WT1 protein, exon 6  | 3e-019  |
| 2051   | D13624      | Human Wilms tumor gene encoding WT1 protein, exon 6  | 3e-019  |
| 2052   | D86566      | Human DNA for NOTCH4, partial cds  | 3e-019  |
| 2053   | U72787      | Homo sapiens cosmid clone U163C11 from Xp22.1-22.2, complete sequence [Homo sapiens]                 | 3e-019  |
| 2054   | U86759      | Human netrin-2 like protein (NTN2l) mRNA, complete cds   | 3e-019  |
| 2055   | X78454      | X.laevis AB21 mRNA for RPD3 homologue  | 3e-019  |
| 2056   | NM_000969.1 | Homo sapiens ribosomal protein L5 (RPL5) mRNA  | 1e-019  |
| 2057   | U49869      | Human ubiquitin gene, complete cds   | 1e-019  |
| 2058   | X78901      | H.sapiens (lambda63) DNA of apolipoprotein cluster   | 9e-020  |
| 2059   | U32515      | Human putative tumor suppressor (MXI1) gene, exons 4, 5, and 6, and complete cds                     | 9e-020  |
| 2060   | D87717      | Human mRNA for KIAA0013 gene, complete cds   | 5e-020  |
| 2061   | Z68758      | Human DNA sequence from cosmid cN85E10 on chromosome 22q11.2-qter                                    | 3e-020  |
| 2062   | Z30584      | R.norvegicus (wistar) mRNA for ZG-16p  | 3e-020  |
| 2063   | Z68758      | Human DNA sequence from cosmid cN85E10 on chromosome 22q11.2-qter                                    | 3e-020  |
| 2064   | M58600      | Human heparin cofactor II (HCF2) gene, exons 1 through 5.  | 3e-020  |
| 2065   | U93037      | Homo sapiens elastin gene, exons 5-27 and alternatively spliced products, partial cds                | 3e-020  |
| 2066   | L38951      | Homo sapiens importin beta subunit mRNA, complete cds  | 2e-020  |
| 2067   | D26141      | Human NF1 gene homologue   | 1e-020  |
| 2068   | M18796      | Orangutan beta- and delta-globin gene intergenic region with 2 Alu repeats.                          | 1e-020  |
| 2069   | Z47046      | Human cosmid QLL2C9 from Xq28  | 1e-020  |
| 2070   | AC001443    | Homo sapiens (subclone 2_f10 from BAC 2913   | 1e-020  |
| 2071   | X15965      | Rabbit DNA for L1Oc5 repeat  | 1e-020  |
| 2072   | U86453      | Human phosphatidylinositol 3-kinase catalytic subunit p110delta mRNA, complete cds                   | 6e-021  |
| 2073   | M90058      | Human serglycin gene, exons 1,2, and 3.  | 4e-021  |
| 2074   | L81932      | Homo sapiens (subclone 9_h2 from P1 H21) DNA sequence  | 4e-021  |
| 2075   | X68258      | Bicistronic transcription units (pSBC-2)   | 3e-021  |
| 2076   | L78777      | Homo sapiens (subclone 2_b8 from P1 H49) DNA sequence  | 3e-021  |
| 2077   | J01415      | Human mitochondrion, complete genome   | 1e-021  |
| 2078   | L43411      | Homo sapiens (subclone 5_g5 from P1 H25) DNA sequence.   | 1e-021  |
| 2079   | NM_000967.1 | Homo sapiens ribosomal protein L3 (RPL3) mRNA protein  | 1e-021  |
| 2080   | Z81014      | Human DNA sequence from cosmid U65A4, between markers DXS366 and DXS87 on chromosome X *             | 1e-021  |
| 2081   | U93037      | Homo sapiens elastin gene, exons 5-27 and alternatively spliced products, partial cds                | 1e-021  |
| 2082   | X78454      | X.laevis AB21 mRNA for RPD3 homologue  | 1e-021  |
| 2083   | X82825      | A.thaliana PRL1 mRNA   | 1e-021  |
| 2084   | J01415      | Human mitochondrion, complete genome   | 4e-022  |
| 2085   | Z68885      | Human DNA sequence from cosmid L21F12B, Huntington's Disease Region, chromosome 4p16.3, contains EST | 4e-022  |
| 2086   | L81690      | Homo sapiens (subclone 1_c2 from P1 H56) DNA sequence  | 4e-022  |
| 2087   | Z47046      | Human cosmid QLL2C9 from Xq28  | 4e-022  |
| 2088   | Z73360      | Human DNA sequence from cosmid 92M18, BRCA2 gene region chromosome 13q12-13                          | 1e-022  |
| 2089   | L78776      | Homo sapiens (subclone 2_a7 from P1 H49) DNA sequence  | 1e-022  |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 2090   | Z96210      | H.sapiens telomeric DNA sequence, clone 12PTEL057, read 12PTELOO057.seq  | 5e-023  |
| 2091   | Z50751      | H.sapiens mRNA for B4B   | 4e-023  |
| 2092   | U14567      | ***ALU WARNING: Human Alu-J subfamily consensus  | 4e-023  |
| 2093   | L35657      | Homo sapiens (subclone H8 5_a10 from P1 35 H5 C8) DNA  | 4e-023  |
| 2094   | Z81315      | Human DNA sequence from fosmid F62D4 on chromosome 22q12-qter > :: emb Z81316 HSF62D4A Human DNA sequence from fosmid F62D4 on chromosome 22, complete   | 4e-023  |
| 2095   | U93237      | Human menin (MEN1) gene, complete cds  | 1e-023  |
| 2096   | M16660      | Human 90-kDa heat-shock protein gene, cDNA, complete   | 1e-023  |
| 2097   | Z93943      | Human DNA sequence from cosmid U235H3 on   | 6e-024  |
| 2098   | M84334      | Macacca mulatta hnRNP A1-gamma isoform mRNA,   | 5e-024  |
| 2099   | Z73360      | Human DNA sequence from cosmid 92M18, BRCA2 gene region chromosome 13q12-13  | 5e-024  |
| 2100   | L32754      | Homo sapiens Ig-associated signalling molecule   | 5e-024  |
| 2101   | AC002252    | Homo sapiens (subclone 1_g7 from BAC H76) DNA  | 5e-024  |
| 2102   | NM_000982.1 | Homo sapiens ribosomal protein L21 (RPL21) mRNA > :: gb U25789 HSU25789 Human ribosomal protein L21 mRNA, complete cds.  | 5e-024  |
| 2103   | NM_000397.1 | Homo sapiens cytochrome b-245, beta polypeptide encoding mitochondrial protein, mRNA > :: emb X04011 HSXCGD Human mRNA of X-CGD gene involved in chronic granulomatous disease located on chromosome X | 5e-024  |
| 2104   | L19086      | Human LINE1 (L1.3) repetitive element DNA sequence.  | 4e-024  |
| 2105   | U88531      | Bos taurus phosphatidylinositol 4-kinase mRNA, complete  | 2e-024  |
| 2106   | D38112      | Human mitochondrial DNA, complete sequence   | 2e-024  |
| 2107   | NM_003011.1 | Homo sapiens SET translocation (myeloid leukemia-associated) (SET) mRNA > :: gb M93651 HUMSET Human  | 2e-024  |
| 2108   | M98512      | Human NFG genomic fragment.  | 2e-024  |
| 2109   | NM_001019.1 | Homo sapiens ribosomal protein S15a for ribosomal protein  | 2e-024  |
| 2110   | X70991      | H.sapiens MADER mRNA   | 2e-024  |
| 2111   | X14445      | Human int-2 proto-oncogene   | 2e-024  |
| 2112   | AC001174    | Homo sapiens (subclone 1_e2 from BAC H94) DNA  | 2e-024  |
| 2113   | D86566      | Human DNA for NOTCH4, partial cds  | 2e-024  |
| 2114   | Z78885      | H.sapiens flow-sorted chromosome 6 HindIII fragment,   | 1e-024  |
| 2115   | X82272      | Human endogenous retrovirus env mRNA   | 1e-024  |
| 2116   | Z96167      | H.sapiens telomeric DNA sequence, clone 10QTEL017, read 10QTELOO017.seq  | 6e-025  |
| 2117   | L38951      | Homo sapiens importin beta subunit mRNA, complete cds  | 6e-025  |
| 2118   | X53575      | Yeast RPL7 gene for ribosomal protein L7   | 6e-025  |
| 2119   | L77040      | Homo sapiens (subclone 8_c11 from P1 H22) DNA  | 5e-025  |
| 2120   | Z23957      | H. sapiens (D2S336) DNA segment containing (CA) repeat; clone AFM275yf5; single read   | 5e-025  |
| 2121   | X14445      | Human int-2 proto-oncogene   | 5e-025  |
| 2122   | L39062      | Homo sapiens interleukin 9 receptor IL9R pseudogene,   | 2e-025  |
| 2123   | Z84723      | Human DNA sequence from phage LAW2 from a contig from the tip of the short arm of chromosome 16, spanning 2Mb of 16p13.3 Contains Interleukin 9 receptor pseudogene                                    | 2e-025  |
| 2124   | AC001174    | Homo sapiens (subclone 1_e2 from BAC H94) DNA  | 2e-025  |
| 2125   | NM_001423.1 | Homo sapiens epithelial membrane protein 1 Progression Associated Protein  | 2e-025  |
| 2126   | X14445      | Human int-2 proto-oncogene   | 2e-025  |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION   | P VALUE |
|--------|-------------|---|---------|
| 2127   | M68841      | Human L1 repetitive sequence with a region homologous to a mouse ORF.   | 2e-025  |
| 2128   | X97489      | H.sapiens PIT1/GHF1 gene silencer region  | 2e-025  |
| 2129   | X73501      | H.sapiens gene for cytokeratin 20   | 1e-025  |
| 2130   | U48363      | Mus musculus transcriptional activator alpha-NAC  | 1e-025  |
| 2131   | X01037      | Human 7SL RNA sequence  | 7e-026  |
| 2132   | M22485      | Human ring chromosome 21 [r(21)] breakpoint DNA.  | 2e-026  |
| 2133   | K03429      | Ape (chimpanzee) 28S ribosomal RNA gene.  | 2e-026  |
| 2134   | AF053644    | Homo sapiens cellular apoptosis susceptibility protein (CSE1) gene, exon 2  | 9e-027  |
| 2135   | L06900      | Human dystrophin gene, intron 1 containing pseudo exon.   | 7e-027  |
| 2136   | U18271      | Human thymopoietin (TMPO) gene, partial exon 6, complete exon 7, partial exon 8, and partial cds for  | 7e-027  |
| 2137   | X05323      | Human MRC OX-2 gene signal sequence   | 7e-027  |
| 2138   | M99065      | Rat core histone (MacroH2A.1) mRNA, complete cds.   | 7e-027  |
| 2139   | X01037      | Human 7SL RNA sequence  | 6e-027  |
| 2140   | M22485      | Human ring chromosome 21 [r(21)] breakpoint DNA.  | 2e-027  |
| 2141   | D50494      | Mouse mRNA for murine RCK, complete cds   | 2e-027  |
| 2142   | M14292      | Human L1Heg repetitive element from the intergenic region of the epsilon and G-gamma globin genes.  | 2e-027  |
| 2143   | U72787      | Homo sapiens cosmid clone U163C11 from Xp22.1-22.2, complete sequence [Homo sapiens]  | 7e-028  |
| 2144   | NM_001030.1 | Homo sapiens ribosomal protein S27 gb L19739 HUMMPSI Homo sapiens metallopanstimulin (MPS1) mRNA, complete cds. > :: gb I60224 I60224 Sequence 1 from patent US | 7e-028  |
| 2145   | AC002186    | Homo sapiens (subclone 1 f12 from P1 H115) DNA  | 7e-028  |
| 2146   | M22485      | Human ring chromosome 21 [r(21)] breakpoint DNA.  | 3e-028  |
| 2147   | Z95437      | Human DNA sequence from cosmid A1 on chromosome 6 contains ESTs. HERV like retroviral sequence  | 2e-028  |
| 2148   | NM_001025.1 | Homo sapiens ribosomal protein S23 (RPS23) mRNA > :: dbj D14530 HUMRSPT Human homolog of yeast ribosomal protein S28, complete cds                              | 2e-028  |
| 2149   | Z95437      | Human DNA sequence from cosmid A1 on chromosome 6 contains ESTs. HERV like retroviral sequence  | 2e-028  |
| 2150   | Z62151      | H.sapiens CpG island DNA genomic MseI fragment, clone 64c7, forward read cpg64c7.ft1a   | 1e-028  |
| 2151   | Z62151      | H.sapiens CpG island DNA genomic MseI fragment, clone 64c7, forward read cpg64c7.ft1a   | 8e-029  |
| 2152   | X62996      | H.sapiens mitochondrial genome (consensus sequence)   | 8e-029  |
| 2153   | Z62151      | H.sapiens CpG island DNA genomic MseI fragment, clone 64c7, forward read cpg64c7.ft1a   | 8e-029  |
| 2154   | AC001518    | Homo sapiens (subclone 2 b4 from P1 H49) DNA sequence   | 8e-029  |
| 2155   | X56932      | H.sapiens mRNA for 23 kD highly basic protein   | 8e-029  |
| 2156   | U93563      | Human L1 element L1.6 putative p150 gene, complete cds  | 8e-029  |
| 2157   | Z96282      | H.sapiens telomeric DNA sequence, clone 13QTEL058, read 13QTELOO058.seq   | 8e-029  |
| 2158   | NM_002892.1 | Homo sapiens retinoblastoma-binding protein 1 (RBBP1) mRNA > :: gb S66427 S66427 RBP1=retinoblastoma binding protein 1 [human, Nalm-6 pre-B cell leukemia,      | 7e-029  |
| 2159   | M12855      | Human endogenous retrovirus DNA downstream of 5' LTR, clone HERV-K22.   | 3e-029  |



Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 2160   | X86012      | Human DNA sequence from intron 22 of the factor VIII gene, Xq28. Contains the end of a 9.5kb repeated region, int22h-1, involved in many cases of haemophilia  | 3e-029  |
| 2161   | L81840      | Homo sapiens (subclone 1 f8 from P1 H43) DNA sequence  | 3e-029  |
| 2162   | Z11711      | H.sapiens gene for alpha-2 macroglobulin, exon 1   | 3e-029  |
| 2163   | X61453      | M.musculus mRNA for H19 clone  | 3e-029  |
| 2164   | NM_003389.1 | Homo sapiens WD repeat domain 2 (WDR2) mRNA >  | 1e-029  |
| 2165   | L81840      | Homo sapiens (subclone 1 f8 from P1 H43) DNA sequence  | 9e-030  |
| 2166   | L05173      | Homo sapiens chromosome 21 DNA fragment with Alu, L1 and O repetitive elements.  | 8e-030  |
| 2167   | M12855      | Human endogenous retrovirus DNA downstream of 5' LTR, clone HERV-K22.  | 3e-030  |
| 2168   | M12855      | Human endogenous retrovirus DNA downstream of 5' LTR, clone HERV-K22.  | 3e-030  |
| 2169   | J05211      | Human desmoplakin mRNA, 3' end.  | 3e-030  |
| 2170   | Z96167      | H.sapiens telomeric DNA sequence, clone 10QTELO17, read 10QTELOO017.seq  | 3e-030  |
| 2171   | M12855      | Human endogenous retrovirus DNA downstream of 5' LTR, clone HERV-K22.  | 3e-030  |
| 2172   | AC002186    | Homo sapiens (subclone 1 f12 from P1 H115) DNA   | 3e-030  |
| 2173   | L35657      | Homo sapiens (subclone H8 5 a10 from P1 35 H5 C8) DNA  | 3e-030  |
| 2174   | L35657      | Homo sapiens (subclone H8 5 a10 from P1 35 H5 C8) DNA  | 3e-030  |
| 2175   | L39061      | Homo sapiens transcription factor SL1 mRNA, partial cds.   | 3e-030  |
| 2176   | AF010313    | Homo sapiens Pig8 (PIG8) mRNA, complete cds  | 1e-030  |
| 2177   | AC001443    | Homo sapiens (subclone 2 f10 from BAC 2913   | 1e-030  |
| 2178   | Z62151      | H.sapiens CpG island DNA genomic MseI fragment, clone 64c7, forward read cpg64c7.ft1a  | 3e-031  |
| 2179   | AF010312    | Homo sapiens Pig7 (PIG7) mRNA, complete cds  | 1e-031  |
| 2180   | U77085      | Human epithelial membrane protein (CL-20) mRNA,  | 1e-031  |
| 2181   | D29805      | Human mRNA for beta-1,4-galactosyltransferase, complete  | 1e-031  |
| 2182   | Z95437      | Human DNA sequence from cosmid A1 on chromosome 6 contains ESTs. HERV like retroviral sequence   | 1e-031  |
| 2183   | X62996      | H.sapiens mitochondrial genome (consensus sequence)  | 1e-031  |
| 2184   | U80409      | Lactococcus lactis cremoris glucose inhibited division protein homolog GidA (gidA) gene, partial cds   | 4e-032  |
| 2185   | X00525      | Mouse 28S ribosomal RNA  | 1e-032  |
| 2186   | U35032      | Human endogenous retrovirus clone c5.11, HERV-H multiply spliced subgenomic leader, protease and integrase   | 1e-032  |
| 2187   | Z75894      | Human DNA sequence from cosmid U61F10, between markers DXS366 and DXS87 on chromosome X contains   | 1e-032  |
| 2188   | U22055      | Human 100 kDa coactivator mRNA, complete cds.  | 1e-032  |
| 2189   | M98509      | Human NFB genomic fragment.  | 5e-033  |
| 2190   | D38112      | Human mitochondrial DNA, complete sequence   | 2e-033  |
| 2191   | Z69364      | Human DNA sequence from cosmid L96F8, Huntington's Disease Region, chromosome 4p16.3 contains EST and cDNA > :: emb Z69365 HSL96F8A Human DNA sequence from cosmid L96F8, Huntington's Disease Region, chromosome 4p16.3 contains EST and cDNA | 5e-034  |
| 2192   | U59695      | Human apurinic/apyrimidinic endonuclease (HAP1) gene, 5' upstream region   | 5e-034  |
| 2193   | L35657      | Homo sapiens (subclone H8 5 a10 from P1 35 H5 C8) DNA  | 2e-034  |
| 2194   | L78778      | Homo sapiens (subclone 2 e10 from P1 H49) DNA  | 2e-034  |
| 2195   | V00662      | H.sapiens mitochondrial genome   | 5e-035  |

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| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 2196   | M30629      | Human pregnancy-specific glycoprotein beta-1   | 5e-035  |
| 2197   | NM_003134.1 | Homo sapiens signal recognition particle 14kD (homologous Alu RNA-binding protein) (SRP14) mRNA > recognition  | 5e-035  |
| 2198   | U93572      | Human L1 element L1.25 p40 and putative p150 genes,  | 2e-035  |
| 2199   | Z96176      | H.sapiens telomeric DNA sequence, clone 10QTELO38, read 10QTELOO038.seq  | 6e-036  |
| 2200   | V00710      | Human mitochondrial genes for several tRNAs (Phe, Val, Leu) and 12S and 16S ribosomal RNAs   | 6e-036  |
| 2201   | Z78715      | H.sapiens flow-sorted chromosome 6 HindIII fragment,   | 5e-036  |
| 2202   | U93574      | Human L1 element L1.39 p40 and putative p150 genes,  | 2e-036  |
| 2203   | S63912      | D10S102=FBRNP [human, fetal brain, mRNA, 3043 nt]  | 1e-036  |
| 2204   | AB011137    | Homo sapiens mRNA for KIAA0565 protein, complete cds   | 1e-036  |
| 2205   | Z55370      | H.sapiens CpG island DNA genomic MseI fragment, clone 37a7, forward read cpg37a7.ft1a  | 7e-037  |
| 2206   | L36720      | Homo sapiens bystin mRNA, complete cds   | 7e-037  |
| 2207   | S45936      | HTS1=HeLa tumor suppressor gene [human, revertant clone F2, mRNA Partial, 2687 nt]   | 7e-037  |
| 2208   | U36755      | Human thrombin receptor (F2R) gene, 5' region and partial  | 6e-037  |
| 2209   | D50694      | Rattus norvegicus mRNA for proteasomal ATPase  | 3e-037  |
| 2210   | AB001325    | Human AQP3 gene for aquaporine 3 (water channel), partail  | 2e-037  |
| 2211   | L35657      | Homo sapiens (subclone H8 5_a10 from P1 35 H5 C8) DNA  | 2e-037  |
| 2212   | U36445      | Bos taurus calcium-activated chloride channel mRNA,  | 2e-037  |
| 2213   | X66292      | P.pygmaeus (OX3910-11) alphoid repetitive DNA  | 7e-038  |
| 2214   | D38112      | Human mitochondrial DNA, complete sequence   | 6e-038  |
| 2215   | Z16571      | H. sapiens (D12S80) DNA segment containing (CA) repeat; clone AFM102xd6; single read   | 6e-038  |
| 2216   | D50561      | Human DNA, replication enhancing element (REE1)  | 3e-038  |
| 2217   | X66292      | P.pygmaeus (OX3910-11) alphoid repetitive DNA  | 8e-039  |
| 2218   | Z73360      | Human DNA sequence from cosmid 92M18, BRCA2 gene region chromosome 13q12-13  | 7e-039  |
| 2219   | M25718      | Human rDNA and 4 Alu repeats.  | 4e-039  |
| 2220   | NM_000397.1 | Homo sapiens cytochrome b-245, beta polypeptide encoding mitochondrial protein, mRNA > :: emb X04011 HSXCGD Human mRNA of X-CGD gene involved in chronic granulomatous disease located on chromosome X | 3e-039  |
| 2221   | M13073      | Human metallothionein I processed pseudogene, complete   | 2e-039  |
| 2222   | Z78715      | H.sapiens flow-sorted chromosome 6 HindIII fragment,   | 3e-040  |
| 2223   | U72787      | Homo sapiens cosmid clone U163C11 from Xp22.1-22.2, complete sequence [Homo sapiens]   | 3e-040  |
| 2224   | Z12962      | H.sapiens mRNA for homologue to yeast ribosomal protein  | 3e-040  |
| 2225   | Z78715      | H.sapiens flow-sorted chromosome 6 HindIII fragment,   | 9e-041  |
| 2226   | AC001443    | Homo sapiens (subclone 2_f10 from BAC 2913   | 4e-041  |
| 2227   | Z73360      | Human DNA sequence from cosmid 92M18, BRCA2 gene region chromosome 13q12-13  | 3e-041  |
| 2228   | S72304      | rah=ras-related homolog [mice, HT4 neural cell line,   | 3e-041  |
| 2229   | AC001443    | Homo sapiens (subclone 2_f10 from BAC 2913   | 1e-041  |
| 2230   | U49974      | Human mariner2 transposable element, complete consensus  | 1e-041  |
| 2231   | L26507      | Mouse myocyte nuclear factor (MNF) mRNA, complete cds.   | 1e-041  |
| 2232   | U08191      | Human R kappa B mRNA, complete cds.  | 1e-042  |
| 2233   | D11078      | Homo sapiens RGH2 gene, retrovirus-like element  | 1e-042  |
| 2234   | U83908      | Human nuclear antigen H731 mRNA, complete cds  | 1e-042  |
| 2235   | X63209      | B.taurus CI-ASHI mRNA for ubiquinone oxidoreductase  | 1e-042  |

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| SEQ ID | ACCESSION   | DESCRIPTION   | P VALUE |
|--------|-------------|---|---------|
| 2236   | NM_002743.1 | Homo sapiens protein kinase C substrate 80K-H (PRKCSH) mRNA > :: gb J03075 HUMG19P1A Human 80K-H protein (kinase C substrate) mRNA, complete cds.   | 1e-042  |
| 2237   | L78777      | Homo sapiens (subclone 2_b8 from P1 H49) DNA sequence   | 4e-043  |
| 2238   | Z59382      | H.sapiens CpG island DNA genomic MseI fragment, clone 152b10, reverse read cpg152b10.rt1a   | 1e-043  |
| 2239   | L12469      | Gallus gallus (max) gene, complete cds.   | 1e-043  |
| 2240   | U72789      | Homo sapiens cosmid clone U197H5 from Xp22.1-22.2, complete sequence [Homo sapiens]   | 5e-044  |
| 2241   | AF004161    | Oryctolagus cuniculus peroxisomal Ca-dependent solute carrier mRNA, complete cds  | 5e-044  |
| 2242   | M22485      | Human ring chromosome 21 [r(21)] breakpoint DNA.  | 2e-044  |
| 2243   | Z60212      | H.sapiens CpG island DNA genomic MseI fragment, clone 195c8, forward read cpg195c8.ft1a   | 2e-045  |
| 2244   | M22485      | Human ring chromosome 21 [r(21)] breakpoint DNA.  | 2e-045  |
| 2245   | AF004161    | Oryctolagus cuniculus peroxisomal Ca-dependent solute carrier mRNA, complete cds  | 2e-045  |
| 2246   | D38112      | Human mitochondrial DNA, complete sequence  | 1e-045  |
| 2247   | U72787      | Homo sapiens cosmid clone U163C11 from Xp22.1-22.2, complete sequence [Homo sapiens]  | 6e-046  |
| 2248   | Z69925      | Human DNA sequence from cosmid cN116A5, on chromosome 22q12-qter contains exon trap   | 5e-046  |
| 2249   | U12404      | Human Csa-19 mRNA, complete cds.  | 5e-046  |
| 2250   | Y07969      | H.sapiens mRNA for APRIL protein  | 2e-046  |
| 2251   | X90583      | H.sapiens mRNA for rat translocon-associated protein delta  | 2e-046  |
| 2252   | L35657      | Homo sapiens (subclone H8_5_a10 from P1 35 H5 C8) DNA   | 2e-046  |
| 2253   | NM_001762.1 | Homo sapiens chaperonin containing T-complex subunit 6 (CCT6) mRNA > :: gb L27706 HUMTCP20 Human chaperonin protein (Tc20) gene complete cds.   | 2e-046  |
| 2254   | AF008563    | Kluyveromyces lactis centromere-binding factor 5  | 7e-047  |
| 2255   | NM_002137.1 | Homo sapiens heterogeneous nuclear ribonucleoprotein A2/B1 (HNRPA2B1) mRNA > :: gb M29065 HUMRNPA2A Human hnRNP A2 protein  | 5e-047  |
| 2256   | NM_001866.1 | Homo sapiens cytochrome c oxidase subunit VIIb (COX7B), nuclear gene encoding mitochondrial protein, mRNA > :: emb Z14244 HSCOX7BM H.sapiens coxVIIb mRNA for cytochrome c oxidase subunit VIIb | 3e-047  |
| 2257   | Z55938      | H.sapiens CpG island DNA genomic MseI fragment, clone 74a1, reverse read cpg74a1.rt1a   | 2e-047  |
| 2258   | U31278      | Homo sapiens mitotic feedback control protein Madp2 homolog mRNA, complete cds  | 2e-047  |
| 2259   | U72787      | Homo sapiens cosmid clone U163C11 from Xp22.1-22.2, complete sequence [Homo sapiens]  | 2e-047  |
| 2260   | NM_003295.1 | Homo sapiens tumor protein, translationally-controlled 1 (TPT1) mRNA > :: emb X16064 HSTUMP Human mRNA for translationally controlled tumor protein   | 7e-048  |
| 2261   | NM_003503.1 | Homo sapiens CDC7 (cell division cycle 7, S. cerevisiae, homolog)-like 1 (CDC7L1) mRNA, and translated products > :: gb AF015592 AF015592 Homo sapiens Cdc7                                     | 3e-048  |
| 2262   | Z62151      | H.sapiens CpG island DNA genomic MseI fragment, clone 64c7, forward read cpg64c7.ft1a   | 2e-048  |
| 2263   | L11877      | Homo sapiens dUTP nucleotidohydrolase mRNA, 5' end.   | 8e-049  |
| 2264   | L40403      | Homo sapiens (clone zap3) mRNA, 3' end of cds   | 3e-049  |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 2265   | M81600      | Human NAD(P)H:quinone oxidoreductase gene, exon 6 >  | 2e-049  |
| 2266   | U72787      | Homo sapiens cosmid clone U163C11 from Xp22.1-22.2, complete sequence [Homo sapiens]   | 8e-050  |
| 2267   | M31004      | Human nuclear phosphoprotein B23 mRNA, clone hpB2.   | 8e-050  |
| 2268   | Z97207      | Mus musculus mRNA for B-IND1 protein   | 8e-050  |
| 2269   | AF007775    | Rattus norvegicus aquaporin-pancreas and liver   | 3e-050  |
| 2270   | U72787      | Homo sapiens cosmid clone U163C11 from Xp22.1-22.2, complete sequence [Homo sapiens]   | 9e-051  |
| 2271   | U72787      | Homo sapiens cosmid clone U163C11 from Xp22.1-22.2, complete sequence [Homo sapiens]   | 9e-051  |
| 2272   | X06683      | Mouse mRNA for Cu-Zn superoxide dismutase (EC 1.15.1.1) > :: gb M35725 MUSCZSOD Mouse Cu-Zn superoxide dismutase mRNA, complete cds.   | 9e-051  |
| 2273   | X93334      | H.sapiens mitochondrial DNA, complete genome   | 3e-051  |
| 2274   | U27197      | Drosophila melanogaster pelota (pelo) mRNA, complete cds   | 3e-051  |
| 2275   | D87953      | Human mRNA for RTP, complete cds   | 1e-051  |
| 2276   | L81869      | Homo sapiens (subclone 1 c4 from P1 H55) DNA sequence  | 4e-052  |
| 2277   | D63876      | Human mRNA for KIAA0154 gene, partial cds  | 4e-052  |
| 2278   | D14659      | Human mRNA for KIAA0103 gene, complete cds   | 3e-052  |
| 2279   | X93334      | H.sapiens mitochondrial DNA, complete genome   | 4e-053  |
| 2280   | D38112      | Human mitochondrial DNA, complete sequence   | 4e-053  |
| 2281   | U97519      | Homo sapiens podocalyxin-like protein mRNA, complete   | 4e-053  |
| 2282   | L35657      | Homo sapiens (subclone H8 5 a10 from P1 35 H5 C8) DNA  | 4e-053  |
| 2283   | D63876      | Human mRNA for KIAA0154 gene, partial cds  | 4e-053  |
| 2284   | D38112      | Human mitochondrial DNA, complete sequence   | 1e-053  |
| 2285   | Z57342      | H.sapiens CpG island DNA genomic MseI fragment, clone 172a12, forward read cpg172a12.ft1a  | 1e-053  |
| 2286   | Z64479      | H.sapiens CpG island DNA genomic MseI fragment, clone 127c4, reverse read cpg127c4.rt1a  | 1e-053  |
| 2287   | M28209      | Homo sapiens GTP-binding protein (RAB1) mRNA,  | 1e-053  |
| 2288   | S57803      | Ro60 protein gene [human, mRNA Partial, 176 nt, segment  | 4e-054  |
| 2289   | U01139      | Mus musculus B6D2F1 clone 2C11B mRNA.  | 1e-054  |
| 2290   | U72787      | Homo sapiens cosmid clone U163C11 from Xp22.1-22.2, complete sequence [Homo sapiens]   | 1e-054  |
| 2291   | M16553      | Human tissue factor mRNA, complete cds, with an Alu repeat in the 3' untranslated region.  | 5e-055  |
| 2292   | D10522      | Homo sapiens mRNA for 80K-L protein, complete cds  | 5e-055  |
| 2293   | Z71621      | H.sapiens Wnt-13 mRNA  | 5e-055  |
| 2294   | M81104      | Human CD34 mRNA, complete cds.   | 4e-055  |
| 2295   | D29805      | Human mRNA for beta-1,4-galactosyltransferase, complete  | 2e-055  |
| 2296   | X04299      | Human mRNA for liver alcohol dehydrogenase (EC 1.1.1.1) gamma 2 subunit from ADH3 locus  | 2e-055  |
| 2297   | U57715      | Rattus norvegicus FGF receptor activating protein FRAG1 (FRAG1) mRNA, complete cds   | 2e-055  |
| 2298   | NM_003150.1 | Homo sapiens signal transducer and activator of transcription 3 (acute-phase response factor) (STAT3) mRNA > :: gb L29277 HUMAPRF Homo sapiens DNA-binding protein (APRF) mRNA, complete cds. > :: | 2e-056  |
| 2299   | X56974      | M.musculus mRNA for external transcribed spacer  | 2e-057  |
| 2300   | U62435      | Human nicotinic acetylcholine receptor alpha6 subunit precursor, mRNA, complete cds  | 2e-057  |
| 2301   | Z63454      | H.sapiens CpG island DNA genomic MseI fragment, clone 84d2, reverse read cpg84d2.rt1a  | 6e-058  |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 2302   | U34994      | Human DNA-dependent protein kinase catalytic subunit   | 6e-058  |
| 2303   | Z60432      | H.sapiens CpG island DNA genomic MseI fragment, clone 22h4, reverse read cpg22h4.rt1a  | 2e-058  |
| 2304   | U83590      | Rattus norvegicus PAR interacting protein mRNA, complete   | 2e-058  |
| 2305   | U83590      | Rattus norvegicus PAR interacting protein mRNA, complete   | 2e-058  |
| 2306   | M28449      | Mouse Hox-1.7 protein mRNA, 3' end.  | 8e-059  |
| 2307   | M18981      | Human prolactin receptor-associated protein  | 3e-059  |
| 2308   | NM_001866.1 | Homo sapiens cytochrome c oxidase subunit VIIb (COX7B), nuclear gene encoding mitochondrial protein, mRNA > :: emb Z14244 HSCOX7BM H.sapiens coxVIIb mRNA for cytochrome c oxidase subunit VIIb        | 2e-059  |
| 2309   | NM_003295.1 | Homo sapiens tumor protein, translationally-controlled 1 (TPT1) mRNA > :: emb X16064 HSTUMP Human mRNA for translationally controlled tumor protein  | 2e-059  |
| 2310   | D26067      | Human mRNA for KIAA0033 gene, partial cds  | 9e-060  |
| 2311   | NM_003130.1 | Homo sapiens sorcin (SRI) mRNA > :: gb M32886 HUMSRICPA Human sorcin CP-22 mRNA,   | 9e-060  |
| 2312   | X93334      | H.sapiens mitochondrial DNA, complete genome   | 3e-060  |
| 2313   | U12404      | Human Csa-19 mRNA, complete cds.   | 2e-060  |
| 2314   | AF070661    | Homo sapiens HSPC005 mRNA, complete cds  | 1e-060  |
| 2315   | U77665      | Human RNaseP protein p30 (RPP30) mRNA, complete cds  | 1e-060  |
| 2316   | L03558      | Homo sapiens cystatin B mRNA, complete cds.  | 9e-061  |
| 2317   | D14048      | Rat mRNA for SP120, complete cds   | 3e-061  |
| 2318   | NM_002450.1 | Homo sapiens metallothionein 1L (MT1L) mRNA >  | 3e-061  |
| 2319   | NM_001866.1 | Homo sapiens cytochrome c oxidase subunit VIIb (COX7B), nuclear gene encoding mitochondrial protein, mRNA > :: emb Z14244 HSCOX7BM H.sapiens coxVIIb mRNA for cytochrome c oxidase subunit VIIb        | 4e-062  |
| 2320   | AC001443    | Homo sapiens (subclone 2 f10 from BAC 2913   | 3e-062  |
| 2321   | NM_002156.1 | Homo sapiens heat shock 60kD protein 1 chaperonin (HSP60) mRNA, complete cds.  | 3e-062  |
| 2322   | Z97207      | Mus musculus mRNA for B-IND1 protein   | 3e-062  |
| 2323   | J01415      | Human mitochondrion, complete genome   | 1e-062  |
| 2324   | D83735      | Homo sapiens mRNA for neutral calponin, complete cds   | 4e-063  |
| 2325   | NM_001866.1 | Homo sapiens cytochrome c oxidase subunit VIIb (COX7B), nuclear gene encoding mitochondrial protein, mRNA > :: emb Z14244 HSCOX7BM H.sapiens coxVIIb mRNA for cytochrome c oxidase subunit VIIb        | 4e-063  |
| 2326   | X84694      | H.sapiens mRNA for elongations factor Tu-mitochondrial   | 4e-063  |
| 2327   | NM_001910.1 | Homo sapiens cathepsin E (CTSE) mRNA > :: gb J05036 HUMCTSE Human cathepsin E mRNA, complete   | 4e-063  |
| 2328   | AF007775    | Rattus norvegicus aquaporin-pancreas and liver   | 3e-063  |
| 2329   | AF007775    | Rattus norvegicus aquaporin-pancreas and liver   | 3e-063  |
| 2330   | AF007862    | Mus musculus mm-Mago mRNA, complete cds  | 3e-063  |
| 2331   | D38112      | Human mitochondrial DNA, complete sequence   | 1e-063  |
| 2332   | NM_003002.1 | Homo sapiens succinate dehydrogenase complex, subunit D, integral membrane protein (SDHD) mRNA > :: dbj AB006202 AB006202 Homo sapiens mRNA for cytochrome b small subunit of complex II, complete cds | 1e-063  |
| 2333   | D38112      | Human mitochondrial DNA, complete sequence   | 1e-063  |
| 2334   | M12759      | Human Ig J chain gene, exons 3 and 4.  | 1e-063  |
| 2335   | U07802      | Human Tis11d gene, complete cds.   | 1e-063  |
| 2336   | D14659      | Human mRNA for KIAA0103 gene, complete cds   | 1e-063  |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION   | DESCRIPTION  | P VALUE |
|--------|-------------|--|---------|
| 2337   | U38253      | Rattus norvegicus initiation factor eIF-2B gamma subunit (eIF-2B gamma) mRNA, complete cds   | 6e-064  |
| 2338   | M22146      | Human scar protein mRNA, complete cds.   | 5e-064  |
| 2339   | L20681      | Rat proto-oncogene (Ets-1) mRNA, complete cds.   | 4e-064  |
| 2340   | M14292      | Human L1Heg repetitive element from the intergenic region of the epsilon and G-gamma globin genes.   | 4e-064  |
| 2341   | NM_003257.1 | Homo sapiens tight junction protein 1 (zona occludens 1) (TJP1) mRNA > :: gb L14837 HUMZO1A Human tight junction (zonula occludens) protein ZO-1 mRNA, complete  | 4e-064  |
| 2342   | NM_003002.1 | Homo sapiens succinate dehydrogenase complex, subunit D, integral membrane protein (SDHD) mRNA > :: dbj AB006202 AB006202 Homo sapiens mRNA for cytochrome b small subunit of complex II, complete cds | 2e-064  |
| 2343   | X12883      | Human mRNA for cytokeratin 18  | 2e-064  |
| 2344   | D42044      | Human mRNA for KIAA0090 gene, partial cds  | 1e-064  |
| 2345   | Z97207      | Mus musculus mRNA for B-IND1 protein   | 1e-064  |
| 2346   | X51867      | H.sapiens MRP RNA gene encoding the RNA component of RNase MRP   | 7e-065  |
| 2347   | X52104      | Human mRNA for p68 protein   | 7e-065  |
| 2348   | X74215      | H.sapiens mRNA for Lon protease-like protein   | 6e-065  |
| 2349   | U20796      | Rattus norvegicus nuclear receptor Rev-Erba-beta mRNA,   | 5e-065  |
| 2350   | X79201      | H.sapiens mRNA for SYT   | 5e-065  |
| 2351   | U34584      | Human Bcl-2 interacting killer (BIK) mRNA, complete cds  | 5e-065  |
| 2352   | Z75894      | Human DNA sequence from cosmid U61F10, between markers DXS366 and DXS87 on chromosome X contains   | 4e-065  |
| 2353   | NM_002131.1 | Homo sapiens high-mobility group (nonhistone chromosomal) protein isoforms I and Y (HMG1Y) mRNA > :: emb X14958 HSHMGY Human hmgI mRNA for high  | 2e-065  |
| 2354   | AF007862    | Mus musculus mm-Mago mRNA, complete cds  | 5e-068  |
| 2355   | U74297      | Oryctolagus cuniculus PiUS mRNA, complete cds  | 3e-069  |
| 2356   | D11336      | Sus scrofa mRNA for soluble angiotensin-binding protein, complete cds  | 2e-069  |
| 2357   | AF007862    | Mus musculus mm-Mago mRNA, complete cds  | 2e-069  |
| 2358   | U74297      | Oryctolagus cuniculus PiUS mRNA, complete cds  | 3e-071  |
| 2359   | AF061260    | Mus musculus immunosuperfamily protein B12 mRNA,   | 5e-073  |
| 2360   | U92949      | Mus musculus kinesin motor protein KIFC2 mRNA,   | 2e-077  |
| 2361   | AF007775    | Rattus norvegicus aquaporin-pancreas and liver   | 6e-079  |
| 2362   | AF007775    | Rattus norvegicus aquaporin-pancreas and liver   | 8e-082  |
| 2363   | U63840      | Rattus norvegicus nucleoporin p54 mRNA, complete cds   | 6e-085  |
| 2364   | U57344      | Mus musculus homeobox protein Meis3 mRNA, complete   | 1e-085  |
| 2365   | Z11886      | M.musculus notch-1 mRNA  | 5e-087  |
| 2366   | AF007862    | Mus musculus mm-Mago mRNA, complete cds  | 2e-089  |
| 2367   | AF007862    | Mus musculus mm-Mago mRNA, complete cds  | 1e-092  |
| 2368   | Y11092      | M.musculus mRNA for map kinase interacting kinase, Mnk2  | 2e-097  |
| 2369   | L77991      | Gallus gallus cyclin-dependent kinase (cdk6) gene, complete  | 6e-098  |
| 2370   | U42386      | Mus musculus fibroblast growth factor inducible gene 14 (FIN14) mRNA, complete cds   | e-163   |
| 2371   | U42386      | Mus musculus fibroblast growth factor inducible gene 14 (FIN14) mRNA, complete cds   | e-160   |
| 2372   | U42386      | Mus musculus fibroblast growth factor inducible gene 14 (FIN14) mRNA, complete cds   | e-144   |
| 2373   | AJ000696    | Rattus norvegicus mRNA for a novel kinesin-related protein,  | e-106   |
| 2374   | AJ000696    | Rattus norvegicus mRNA for a novel kinesin-related protein,  | e-101   |

Table 2A Nearest Neighbor (BlastN vs. GenBank)

| SEQ ID | ACCESSION | DESCRIPTION  | P VALUE |
|--------|-----------|--|---------|
| 2375   | AJ000696  | Rattus norvegicus mRNA for a novel kinesin-related protein,                                | e-101   |
| 2376   | Z97207    | Mus musculus mRNA for B-IND1 protein   | e-102   |
| 2377   | AJ000696  | Rattus norvegicus mRNA for a novel kinesin-related protein,                                | e-122   |
| 2378   | AB000172  | Porcine mRNA for endopeptidase 24.16, complete cds   | e-118   |
| 2379   | AB000171  | Porcine mRNA for endopeptidase 24.16, complete cds   | e-131   |
| 2380   | U38253    | Rattus norvegicus initiation factor eIF-2B gamma subunit (eIF-2B gamma) mRNA, complete cds | e-129   |
| 2381   | X54352    | M.domesticus MD6 mRNA  | e-142   |
| 2382   | X14678    | Mouse TPA-induced TIS11 mRNA   | e-121   |
| 2383   | X82632    | M.fascicularis mRNA for NAD <sup>+</sup> -isocitrate dehydrogenase                         | e-142   |
| 2384   | U42385    | Mus musculus fibroblast growth factor inducible gene 16 (FIN16) mRNA, complete cds         | e-123   |
| 2385   | U17901    | Rattus norvegicus phospholipase A-2-activating protein (plap) mRNA, complete cds.          | e-116   |
| 2386   | U08215    | Mus musculus Hsp70-related NST-1 (hsr.1) mRNA,   | e-119   |
| 2387   | X82632    | M.fascicularis mRNA for NAD <sup>+</sup> -isocitrate dehydrogenase                         | e-148   |
| 2388   | U63840    | Rattus norvegicus nucleoporin p54 mRNA, complete cds                                       | e-131   |
| 2389   | U42385    | Mus musculus fibroblast growth factor inducible gene 16 (FIN16) mRNA, complete cds         | e-145   |
| 2390   | U42385    | Mus musculus fibroblast growth factor inducible gene 16 (FIN16) mRNA, complete cds         | e-149   |
| 2391   | U81045    | Cricetulus griseus aldo-keto reductase mRNA, complete cds                                  | e-114   |
| 2392   | L77991    | Gallus gallus cyclin-dependent kinase (cdk6) gene, complete                                | e-103   |
| 2393   | U81045    | Cricetulus griseus aldo-keto reductase mRNA, complete cds                                  | e-115   |
| 2394   | D30666    | Rat mRNA for brain acyl-CoA synthetase II, complete cds                                    | e-139   |
| 2395   | U17901    | Rattus norvegicus phospholipase A-2-activating protein (plap) mRNA, complete cds.          | e-135   |
| 2396   | D30666    | Rat mRNA for brain acyl-CoA synthetase II, complete cds                                    | e-126   |



Table 5

| SEQ | CLST   | Library Pair A,B  | A   | B  | A/B    | B/A   |
|-----|--------|---|-----|----|--------|-------|
| 1   | 734646 |   |     |    |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis) (Colon Tumor Tissue vs. Colon Metastasis)   | 14  | 0  | 14.22  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue) (Normal Colon vs. Colon Tumor Tissue)           | 0   | 14 |        | 13.25 |
| 2   | 400221 |   |     |    |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 13  | 2  | 6.87   |       |
| 3   | 205329 |   |     |    |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 178 | 7  | 26.88  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) (Normal Colon Tissue vs. Colon Metastasis) | 178 | 1  | 191.06 |       |
|     |        | 18,19 (Normal Colon Tissue vs. Colon Tumor) (Normal Colon Tissue vs. Colon Tumor)           | 21  | 0  | 24     |       |
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) (Normal Colon Tissue vs. Colon Metastasis) | 21  | 0  | 17.95  |       |
| 4   | 446680 |   |     |    |        |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)  | 29  | 84 |        | 2.7   |
|     |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) (Normal Lung Tissue vs. Lung Tumor Tissue) | 40  | 94 |        | 2.33  |
| 5   | 1261   |   |     |    |        |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)  | 0   | 7  |        | 6.52  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 0   | 7  |        | 6.89  |
| 6   | 400258 |   |     |    |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 6   | 0  | 6.09   |       |
| 7   | 450559 |   |     |    |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 2   | 11 |        | 5.42  |
| 8   | 450959 |   |     |    |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 1   | 9  |        | 8.51  |
| 9   | 451794 |   |     |    |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 15  | 0  | 15.85  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)  | 15  | 1  | 16.1   |       |
| 10  | 415058 |   |     |    |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 0   | 6  |        | 5.91  |
| 11  | 31506  |   |     |    |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 20  | 77 |        | 3.64  |
|     |        | Low Met)  | 5   | 0  | 6.99   |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)  | 20  | 58 |        | 2.7   |
| 12  | 417155 |   |     |    |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 6   | 0  | 6.34   |       |
| 13  | 448925 |   |     |    |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 5   | 15 |        | 2.95  |
| 14  | 11329  |   |     |    |        |       |

Table 5

| SEQ | CLST   | Library Pair A,B  | A   | B  | A/B   | B/A   |
|-----|--------|---|-----|----|-------|-------|
|     |        | 19,20 (Colon Tumor Tissue vs. Colon Metastasis) (Colon Tumor Tissue vs. Colon Metastasis) | 30  | 5  | 4.49  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 112 | 38 | 3.12  |       |
| 15  | 650422 |   |     |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)  | 18  | 0  | 19.32 |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 6   | 0  | 6.09  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 18  | 6  | 3.17  |       |
| 16  | 6863   |   |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 1   | 8  |       | 8.67  |
| 17  | 449690 |   |     |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 3   | 17 |       | 5.58  |
| 18  | 724616 |   |     |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 0   | 8  |       | 7.57  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 8   | 0  | 8.12  |       |
| 19  | 549722 |   |     |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 0   | 6  |       | 5.91  |
| 20  | 549722 |   |     |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 0   | 6  |       | 5.91  |
| 21  | 448110 |   |     |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)  | 2   | 25 |       | 11.65 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 1   | 25 |       | 24.62 |
| 22  | 515631 |   |     |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 0   | 6  |       | 5.68  |
| 23  | 11881  |   |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)  | 6   | 0  | 5.85  |       |
| 24  | 650856 |   |     |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 6   | 0  | 6.09  |       |
| 25  | 449701 |   |     |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 17  | 1  | 17.26 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 1   | 17 |       | 16.08 |
| 26  | 651073 |   |     |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 7   | 0  | 7.4   |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)  | 7   | 0  | 7.51  |       |
| 27  | 10340  |   |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)  | 6   | 0  | 5.85  |       |
| 28  | 648310 |   |     |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 6   | 0  | 6.34  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)  | 6   | 0  | 6.44  |       |
| 29  | 730336 |   |     |    |       |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 24 |       | 22.71 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 24 | 0  | 24.37 |       |
| 30  | 3060   |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 4  | 17 |       | 4.19  |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 14 | 4  | 3.7   |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 11 |       | 11.27 |
| 31  | 453016 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 33  | 185461 |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 17 |       | 17.42 |
| 34  | 452530 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 2  | 5.28  |       |
| 35  | 448925 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 5  | 15 |       | 2.95  |
| 36  | 1013   |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 40 | 84 |       | 2.28  |
| 37  | 6545   |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 9  |       | 9.22  |
| 38  | 449891 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 1  | 8.46  |       |
| 39  | 4045   |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 11 |       | 5.96  |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 1  | 9.76  |       |
| 40  | 404475 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 2  | 5.59  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 19 | 2  | 10.2  |       |
| 41  | 650297 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 42  | 650493 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 43  | 644884 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 11 | 0  | 11.81 |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 44  | 452212 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 45  | 402727 |  |    |    |       |       |

Table 5

| SEQ | CLST   | Library Pair A,B  | A   | B   | A/B   | B/A  |
|-----|--------|---|-----|-----|-------|------|
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                | 5   | 17  |       | 3.17 |
| 46  | 645194 |   |     |     |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                | 7   | 0   | 7.51  |      |
| 47  | 447501 |   |     |     |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                | 15  | 3   | 5.37  |      |
| 48  | 556326 |   |     |     |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)                                 | 0   | 8   |       | 7.88 |
| 49  | 447035 |   |     |     |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)                                 | 8   | 1   | 8.12  |      |
| 50  | 2551   |   |     |     |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)                                 | 6   | 0   | 6.09  |      |
| 51  | 736154 |   |     |     |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)                                     | 0   | 7   |       | 6.62 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)                                 | 7   | 0   | 7.11  |      |
| 52  | 452028 |   |     |     |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                | 0   | 7   |       | 6.52 |
| 53  | 447441 |   |     |     |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                | 34  | 129 |       | 3.53 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)                                 | 34  | 129 |       | 3.74 |
|     |        | 19,20 (Colon Tumor Tissue vs. Colon Metastasis)                                 | 1   | 8   |       | 10.7 |
|     |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue)                                | 155 | 32  | 4.89  |      |
| 54  | 11028  |   |     |     |       |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met) (Colon, High Met vs. Colon, Low Met) | 0   | 6   |       | 6.5  |
| 55  | 640974 |   |     |     |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                | 9   | 0   | 9.66  |      |
| 56  | 555103 |   |     |     |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                | 0   | 7   |       | 6.52 |
|     |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue)                                | 0   | 6   |       | 5.94 |
| 57  | 446789 |   |     |     |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)                                     | 16  | 5   | 3.38  |      |
| 58  | 644884 |   |     |     |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                | 11  | 0   | 11.81 |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)                                 | 6   | 0   | 6.09  |      |
| 59  | 9029   |   |     |     |       |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)                                      | 7   | 0   | 6.46  |      |
| 60  | 419255 |   |     |     |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)                                     | 11  | 0   | 11.63 |      |

Table 5

| SEQ | CLST   | Library Pair A,B  | A   | B  | A/B   | B/A   |
|-----|--------|---|-----|----|-------|-------|
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                    | 11  | 1  | 11.81 |       |
| 61  | 4309   |   |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 4   | 13 |       | 3.52  |
| 62  | 554069 |   |     |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)                                     | 0   | 6  |       | 5.91  |
| 63  | 4330   |   |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met) (Breast, High Met vs. Breast, Non-Met) | 13  | 3  | 4.23  |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 1   | 10 |       | 10.84 |
| 64  | 644903 |   |     |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                    | 7   | 0  | 7.51  |       |
| 65  | 549395 |   |     |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                    | 2   | 13 |       | 6.06  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)                                     | 1   | 13 |       | 12.8  |
| 66  | 4974   |   |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 1   | 8  |       | 8.67  |
| 67  | 447466 |   |     |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 155 | 5  | 32.77 |       |
|     |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)   | 16  | 1  | 18.28 |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                    | 155 | 2  | 83.19 |       |
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis)                                    | 16  | 0  | 13.68 |       |
| 68  | 645073 |   |     |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 6   | 0  | 6.34  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                    | 6   | 0  | 6.44  |       |
| 69  | 447978 |   |     |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                    | 0   | 8  |       | 7.45  |
| 70  | 607430 |   |     |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 6   | 0  | 6.34  |       |
| 71  | 556198 |   |     |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 0   | 6  |       | 5.68  |
| 72  | 450323 |   |     |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                    | 0   | 8  |       | 7.45  |
| 73  | 21205  |   |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)  | 1   | 9  |       | 9.22  |
| 74  | 561109 |   |     |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 0   | 8  |       | 7.57  |
| 75  | 446673 |   |     |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)                                     | 8   | 1  | 8.12  |       |
| 76  | 456026 |   |     |    |       |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A   | B   | A/B   | B/A    |
|-----|--------|--|-----|-----|-------|--------|
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 24  | 4   | 6.34  |        |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 24  | 8   | 3.22  |        |
| 77  | 449142 |  |     |     |       |        |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9   | 1   | 9.14  |        |
| 78  | 5830   |  |     |     |       |        |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7   | 0   | 7.11  |        |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 7   |       | 6.62   |
| 79  | 554109 |  |     |     |       |        |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 15  | 2   | 7.93  |        |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2   | 11  |       | 5.42   |
| 80  | 595506 |  |     |     |       |        |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6   |       | 5.68   |
| 81  | 453981 |  |     |     |       |        |
|     |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 43  | 258 |       | 5.94   |
|     |        | 19,20 (Colon Tumor Tissue vs. Colon Metastasis)  | 2   | 110 |       | 73.53  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 590 | 6   | 99.86 |        |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 68  | 6   | 12.16 |        |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 68  | 590 |       | 8.21   |
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 110 |       | 128.69 |
| 82  | 642461 |  |     |     |       |        |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 14  | 0   | 15.03 |        |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10  | 0   | 10.16 |        |
| 83  | 556198 |  |     |     |       |        |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6   |       | 5.68   |
| 84  | 2082   |  |     |     |       |        |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 7   |       | 6.62   |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 15  | 55  |       | 3.76   |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 7   | 38  |       | 3.88   |
| 85  | 549435 |  |     |     |       |        |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 14  | 2   | 7.4   |        |
| 86  | 2286   |  |     |     |       |        |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 5   | 28  |       | 5.3    |
|     |        | 19,20 (Colon Tumor Tissue vs. Colon Metastasis)  | 13  | 2   | 4.86  |        |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 5   | 19  |       | 3.54   |
|     |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 3   | 13  |       | 3.79   |
| 87  | 2737   |  |     |     |       |        |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3   | 14  |       | 4.6    |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 4   | 14  |       | 3.26   |
| 88  | 728115 |  |     |     |       |        |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 7   |       | 6.62   |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7   | 0   | 7.11  |        |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|-----|--------|--|----|----|-------|------|
| 89  | 650856 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
| 90  | 650476 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
| 91  | 535208 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 92  | 733849 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
| 93  | 447978 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 8  |       | 7.45 |
| 94  | 729483 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
| 95  | 12018  |  |    |    |       |      |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 6  |       | 6.15 |
| 96  | 4747   |  |    |    |       |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 10 |       | 5.42 |
| 97  | 4747   |  |    |    |       |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 10 |       | 5.42 |
| 98  | 185577 |  |    |    |       |      |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 8  |       | 8.2  |
| 99  | 4126   |  |    |    |       |      |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 13 | 1  | 12.68 |      |
| 100 | 11456  |  |    |    |       |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5  |
| 101 | 729851 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
| 102 | 449849 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 103 | 2490   |  |    |    |       |      |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 7  | 1  | 9.78  |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 21 | 6  | 3.23  |      |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 14 | 3  | 4.55  |      |
| 104 | 549041 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |



Table 5

| SEQ | CLST   | Library Pair A,B                                 | A   | B   | A/B    | B/A   |
|-----|--------|--|-----|-----|--------|-------|
| 105 | 11881  |  |     |     |        |       |
|     |        |  |     |     |        |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6   | 0   | 5.85   |       |
| 106 | 724296 |  |     |     |        |       |
|     |        |  |     |     |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 128 |        | 121.1 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 128 | 0   | 129.99 |       |
| 107 | 726173 |  |     |     |        |       |
|     |        |  |     |     |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6   |        | 5.68  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0   | 6.09   |       |
| 108 | 2423   |  |     |     |        |       |
|     |        |  |     |     |        |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 14  | 0   | 13.66  |       |
| 109 | 556250 |  |     |     |        |       |
|     |        |  |     |     |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1   | 28  |        | 26.49 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 28  | 4   | 7.11   |       |
| 110 | 643594 |  |     |     |        |       |
|     |        |  |     |     |        |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0   | 7.51   |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7   | 0   | 7.4    |       |
| 111 | 11881  |  |     |     |        |       |
|     |        |  |     |     |        |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6   | 0   | 5.85   |       |
| 112 | 7436   |  |     |     |        |       |
|     |        |  |     |     |        |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 9   | 1   | 8.78   |       |
| 113 | 2110   |  |     |     |        |       |
|     |        |  |     |     |        |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 31  | 5   | 6.05   |       |
| 114 | 10340  |  |     |     |        |       |
|     |        |  |     |     |        |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6   | 0   | 5.85   |       |
| 115 | 643594 |  |     |     |        |       |
|     |        |  |     |     |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7   | 0   | 7.4    |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0   | 7.51   |       |
| 116 | 447035 |  |     |     |        |       |
|     |        |  |     |     |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8   | 1   | 8.12   |       |
| 117 | 402707 |  |     |     |        |       |
|     |        |  |     |     |        |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1   | 9   |        | 8.38  |
| 118 | 645799 |  |     |     |        |       |
|     |        |  |     |     |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7   | 0   | 7.11   |       |
| 119 | 171511 |  |     |     |        |       |
|     |        |  |     |     |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7   | 0   | 7.11   |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 7   |        | 6.62  |
| 120 | 451607 |  |     |     |        |       |
|     |        |  |     |     |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 9   |        | 8.86  |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
| 121 | 3138   |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1  | 10 |       | 10.25 |
| 122 | 2988   |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 11 |       | 5.96  |
| 123 | 447326 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 124 | 561734 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 125 | 454999 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 28 | 15 | 2     |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 28 | 11 | 2.69  |       |
| 126 | 185652 |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 7  |       | 7.17  |
| 127 | 6725   |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 0  | 9.76  |       |
| 128 | 726644 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 18 |       | 17.03 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 18 | 0  | 18.28 |       |
| 129 | 11012  |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 130 | 726377 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
| 131 | 735326 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 132 | 650845 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 133 | 9048   |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 7  | 0  | 6.46  |       |
| 134 | 732254 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|     |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 0  | 8  |       | 7.92  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 135 | 452052 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 1  | 8.59  |       |
| 136 | 554079 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 10 |       | 4.92  |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A   |
|-----|--------|--|----|----|------|-------|
| 137 | 9049   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 7  | 0  | 6.46 |       |
| 138 | 1307   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 14 | 89 |      | 6.52  |
| 139 | 139730 |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 9  |      | 9.22  |
| 140 | 7750   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1  | 14 |      | 14.35 |
| 141 | 8050   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 7  |      | 7.59  |
| 142 | 725222 |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |      | 6.62  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11 |       |
| 143 | 3275   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 8  | 0  | 7.81 |       |
| 144 | 7424   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85 |       |
| 145 | 8953   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 13 |      | 13.32 |
| 146 | 8966   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 7  |      | 7.17  |
| 147 | 530883 |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |      | 6.62  |
| 148 | 6725   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 0  | 9.76 |       |
| 149 | 4439   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 10 | 2  | 6.99 |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 15 | 2  | 6.92 |       |
| 150 | 648472 |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51 |       |
| 151 | 735346 |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
| 152 | 732121 |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |      | 6.62  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11 |       |
| 153 | 650337 |  |    |    |      |       |
|     |        |  |    |    |      |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B   | A/B  | B/A   |
|-----|--------|--|----|-----|------|-------|
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0   | 6.44 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0   | 6.34 |       |
| 154 | 533588 |  |    |     |      |       |
|     |        |  |    |     |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0   | 7.51 |       |
| 155 | 649667 |  |    |     |      |       |
|     |        |  |    |     |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0   | 6.34 |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0   | 6.44 |       |
| 156 | 394436 |  |    |     |      |       |
|     |        |  |    |     |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0   | 7.51 |       |
| 157 | 649354 |  |    |     |      |       |
|     |        |  |    |     |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0   | 6.44 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0   | 6.34 |       |
| 158 | 2022   |  |    |     |      |       |
|     |        |  |    |     |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 5  | 15  |      | 3.07  |
|     |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 0  | 6   |      | 6.1   |
| 159 | 561359 |  |    |     |      |       |
|     |        |  |    |     |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 12 | 3   | 4.29 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 2   | 6.34 |       |
| 160 | 7607   |  |    |     |      |       |
|     |        |  |    |     |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 13 | 3   | 4.65 |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 7   |      | 7.59  |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 13 | 4   | 3.44 |       |
| 161 | 7750   |  |    |     |      |       |
|     |        |  |    |     |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1  | 14  |      | 14.35 |
| 162 | 410554 |  |    |     |      |       |
|     |        |  |    |     |      |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0   | 6.09 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6   |      | 5.68  |
| 163 | 2315   |  |    |     |      |       |
|     |        |  |    |     |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 118 |      | 17.28 |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 25 | 4   | 5.76 |       |
| 164 | 561734 |  |    |     |      |       |
|     |        |  |    |     |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6   |      | 5.68  |
| 165 | 4420   |  |    |     |      |       |
|     |        |  |    |     |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0   | 5.85 |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 10  |      | 10.84 |
| 166 | 559663 |  |    |     |      |       |
|     |        |  |    |     |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 15 | 4   | 3.96 |       |
| 167 | 7082   |  |    |     |      |       |
|     |        |  |    |     |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 0   | 9.76 |       |
| 168 | 2315   |  |    |     |      |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B   | A/B  | B/A   |
|-----|--------|--|----|-----|------|-------|
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 118 |      | 17.28 |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 25 | 4   | 5.76 |       |
| 169 | 650472 |  |    |     |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0   | 6.44 |       |
| 170 | 6482   |  |    |     |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6   |      | 6.5   |
| 171 | 4584   |  |    |     |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 11  |      | 11.93 |
| 172 | 453846 |  |    |     |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 11  |      | 10.25 |
| 173 | 650820 |  |    |     |      |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0   | 8.12 |       |
| 174 | 642906 |  |    |     |      |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0   | 7.11 |       |
| 175 | 448805 |  |    |     |      |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 20  |      | 3.28  |
| 176 | 649667 |  |    |     |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0   | 6.34 |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0   | 6.44 |       |
| 177 | 735786 |  |    |     |      |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0   | 7.11 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7   |      | 6.62  |
| 178 | 121457 |  |    |     |      |       |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 91 | 359 |      | 2.82  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 11  |      | 5.12  |
| 179 | 372960 |  |    |     |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 18  |      | 2.79  |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 33  |      | 5.2   |
| 180 | 120049 |  |    |     |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 2   | 5.37 |       |
| 181 | 648996 |  |    |     |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0   | 6.44 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0   | 6.34 |       |
| 182 | 3765   |  |    |     |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 19 | 6   | 2.92 |       |
| 183 | 462642 |  |    |     |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0   | 6.34 |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0   | 6.44 |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
| 184 | 727181 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 185 | 649259 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 186 | 649717 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 187 | 736860 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 188 | 729175 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 189 | 642906 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 190 | 4420   |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85  |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 10 |       | 10.84 |
| 191 | 2420   |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 28 | 11 | 2.35  |       |
| 192 | 648109 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 1  | 8.46  |       |
| 193 | 2334   |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 194 | 639705 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 0  | 10.57 |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |       |
| 195 | 551907 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
| 196 | 561382 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 2  | 6.34  |       |
| 197 | 595506 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 198 | 499424 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57  |
| 199 | 735477 |  |    |    |       |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
| 200 | 734370 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 11 |       | 10.41 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0  | 11.17 |       |
| 201 | 779    |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 27 | 54 |       | 2.17  |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 60 | 22 | 2.66  |       |
| 202 | 649143 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 203 | 489    |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 12 | 58 |       | 4.5   |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 58 |       | 4.57  |
| 204 | 2994   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 3  | 14 |       | 5.06  |
| 205 | 2994   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 3  | 14 |       | 5.06  |
| 206 | 11147  |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 207 | 549395 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 13 |       | 6.06  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 13 |       | 12.8  |
| 208 | 559806 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 209 | 452238 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 210 | 225914 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 211 | 463480 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 212 | 184725 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 213 | 557401 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 2  | 5.37  |       |
| 214 | 455155 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 3  | 4.23  |       |
| 215 | 551117 |  |    |    |       |       |



Table 5

| SEQ | CLST   | Library Pair A,B                                 | A   | B    | A/B   | B/A   |
|-----|--------|--|-----|------|-------|-------|
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6    |       | 5.91  |
| 217 | 729295 |  |     |      |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 7    |       | 6.62  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7   | 0    | 7.11  |       |
| 218 | 450429 |  |     |      |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10  | 1    | 10.16 |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 13  | 1    | 13.95 |       |
| 219 | 450148 |  |     |      |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6    |       | 5.91  |
| 220 | 380412 |  |     |      |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0    | 6.44  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0    | 6.34  |       |
| 221 | 446614 |  |     |      |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7   | 0    | 7.11  |       |
| 222 | 555911 |  |     |      |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2   | 21   |       | 9.78  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 21   |       | 20.68 |
| 223 | 450828 |  |     |      |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1   | 9    |       | 8.38  |
| 224 | 28     |  |     |      |       |       |
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 2   | 11   |       | 6.43  |
|     |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 2   | 43   |       | 18.81 |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 53  | 207  |       | 3.64  |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 697 | 1789 |       | 2.63  |
|     |        | 19,20 (Colon Tumor Tissue vs. Colon Metastasis)  | 43  | 11   | 2.92  |       |
| 225 | 446450 |  |     |      |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11  | 3    | 3.88  |       |
| 226 | 452026 |  |     |      |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 35  | 14   | 2.64  |       |
| 227 | 643594 |  |     |      |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7   | 0    | 7.4   |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0    | 7.51  |       |
| 228 | 1905   |  |     |      |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 7   | 21   |       | 3.25  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 7    |       | 6.52  |
| 229 | 651073 |  |     |      |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0    | 7.51  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7   | 0    | 7.4   |       |
| 230 | 553705 |  |     |      |       |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|-----|--------|--|----|----|-------|------|
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 0  | 12.68 |      |
| 231 | 521840 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 232 | 648689 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
| 233 | 447858 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 3  | 4.23  |      |
| 234 | 556198 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
| 235 | 394436 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
| 236 | 639651 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 237 | 499424 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57 |
| 238 | 468109 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 239 | 185701 |  |    |    |       |      |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 6  |       | 6.15 |
| 240 | 451811 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 2  | 5.37  |      |
| 241 | 730670 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
| 242 | 172013 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 243 | 449142 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 1  | 9.14  |      |
| 244 | 446964 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 10 |       | 9.32 |
| 245 | 414739 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 14 |       | 6.89 |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 14 |       | 6.52 |
| 246 | 641124 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 247 | 555702 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 2  | 5.81  |      |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|-----|--------|--|----|----|-------|------|
| 248 | 549435 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 14 | 2  | 7.4   |      |
| 249 | 643954 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
| 250 | 5984   |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 251 | 560526 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 8  |       | 7.88 |
| 252 | 411113 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 253 | 7607   |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 13 | 4  | 3.44  |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 7  |       | 7.59 |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 13 | 3  | 4.65  |      |
| 254 | 559409 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 255 | 650053 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 1  | 10.57 |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |      |
| 256 | 448511 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3  | 26 |       | 8.07 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 4  | 26 |       | 6.4  |
| 257 | 642142 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0  | 11.17 |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 2  | 11 |       | 5.2  |
| 258 | 470462 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
| 259 | 431601 |  |    |    |       |      |
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 7.69  |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 28 | 9  | 3.34  |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 28 | 6  | 4.93  |      |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 5  | 0  | 6.99  |      |
| 260 | 421431 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 1  | 8.46  |      |
| 261 | 284586 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 262 | 556198 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
| 263 | 431601 |  |    |    |       |      |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A   | B   | A/B    | B/A   |
|-----|--------|--|-----|-----|--------|-------|
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 9   | 0   | 7.69   |       |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 5   | 0   | 6.99   |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 28  | 6   | 4.93   |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 28  | 9   | 3.34   |       |
| 264 | 449891 |  |     |     |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8   | 1   | 8.46   |       |
| 265 | 556561 |  |     |     |        |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 10  |        | 9.32  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 10  |        | 9.85  |
| 266 | 554188 |  |     |     |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0   | 6.34   |       |
| 267 | 3247   |  |     |     |        |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1   | 20  |        | 21.68 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7   | 26  |        | 3.66  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 4   | 26  |        | 6.06  |
| 268 | 546705 |  |     |     |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6   |        | 5.91  |
| 269 | 560984 |  |     |     |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6   |        | 5.91  |
| 270 | 455820 |  |     |     |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 7   |        | 6.89  |
| 271 | 643129 |  |     |     |        |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0   | 7.51   |       |
| 272 | 454653 |  |     |     |        |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3   | 17  |        | 5.28  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 5   | 17  |        | 3.35  |
| 273 | 456549 |  |     |     |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 8   |        | 7.88  |
| 274 | 454806 |  |     |     |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10  | 2   | 5.28   |       |
| 275 | 724296 |  |     |     |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 128 |        | 121.1 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 128 | 0   | 129.99 |       |
| 276 | 559280 |  |     |     |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 7   |        | 6.62  |
| 277 | 171511 |  |     |     |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7   | 0   | 7.11   |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 7   |        | 6.62  |
| 278 | 644242 |  |     |     |        |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 279 | 734370 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 11 |       | 10.41 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0  | 11.17 |       |
| 280 | 639459 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 11 | 0  | 11.81 |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |       |
| 281 | 641679 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |       |
| 282 | 644611 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 283 | 550038 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
| 284 | 452567 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 14 |       | 4.6   |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 21 | 3  | 7.4   |       |
| 285 | 411113 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 286 | 650749 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 287 | 558899 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 288 | 452986 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 1  | 8.46  |       |
| 289 | 393197 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 290 | 499424 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57  |
| 291 | 21669  |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89  |
| 292 | 640590 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 1  | 9.51  |       |
| 293 | 549936 |  |    |    |       |       |
|     |        |  |    |    |       |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B | A/B  | B/A  |
|-----|--------|--|----|---|------|------|
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6 |      | 5.91 |
| 294 | 448770 |  |    |   |      |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0 | 6.44 |      |
| 295 | 559280 |  |    |   |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7 |      | 6.62 |
| 296 | 648934 |  |    |   |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0 | 8.46 |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0 | 8.59 |      |
| 297 | 452685 |  |    |   |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 15 | 5 | 3.17 |      |
| 298 | 456549 |  |    |   |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8 |      | 7.88 |
| 299 | 446614 |  |    |   |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0 | 7.11 |      |
| 300 | 559280 |  |    |   |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7 |      | 6.62 |
| 301 | 446673 |  |    |   |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 1 | 8.12 |      |
| 302 | 562550 |  |    |   |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6 |      | 5.91 |
| 303 | 467288 |  |    |   |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0 | 6.34 |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0 | 6.44 |      |
| 304 | 463824 |  |    |   |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0 | 6.34 |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0 | 6.44 |      |
| 305 | 393197 |  |    |   |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0 | 7.11 |      |
| 306 | 407077 |  |    |   |      |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 8 |      | 7.45 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8 |      | 7.88 |
| 307 | 499424 |  |    |   |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8 |      | 7.57 |
| 308 | 554500 |  |    |   |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0 | 6.34 |      |
| 309 | 730143 |  |    |   |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7 |      | 6.62 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0 | 7.11 |      |

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Table 5

| SEQ | CLST   | Library Pair A,B                                | A  | B  | A/B  | B/A   |
|-----|--------|---|----|----|------|-------|
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)     | 0  | 7  |      | 6.62  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis) | 7  | 0  | 7.11 |       |
| 328 | 8953   |   |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 0  | 13 |      | 13.32 |
| 329 | 8012   |   |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 7  | 0  | 6.83 |       |
| 330 | 185718 |   |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 0  | 6  |      | 6.15  |
| 331 | 729851 |   |    |    |      |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis) | 7  | 0  | 7.11 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)     | 0  | 7  |      | 6.62  |
| 332 | 185597 |   |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 0  | 8  |      | 8.2   |
| 333 | 9887   |   |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 7  | 0  | 6.83 |       |
| 334 | 725825 |   |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)     | 0  | 8  |      | 7.57  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis) | 8  | 0  | 8.12 |       |
| 335 | 6545   |   |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 0  | 9  |      | 9.22  |
| 336 | 21205  |   |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 1  | 9  |      | 9.22  |
| 337 | 8867   |   |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 6  | 0  | 5.85 |       |
| 338 | 729295 |   |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)     | 0  | 7  |      | 6.62  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis) | 7  | 0  | 7.11 |       |
| 339 | 730430 |   |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)     | 0  | 8  |      | 7.57  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis) | 8  | 0  | 8.12 |       |
| 340 | 7072   |   |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 10 | 1  | 9.76 |       |
| 341 | 730533 |   |    |    |      |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis) | 7  | 0  | 7.11 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)     | 0  | 7  |      | 6.62  |
| 342 | 9121   |   |    |    |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)      | 0  | 7  |      | 7.59  |
| 343 | 11131  |   |    |    |      |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A   | B  | A/B   | B/A   |
|-----|--------|--|-----|----|-------|-------|
|     |        |  |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0   | 6  |       | 6.5   |
| 344 | 640116 |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 19  | 4  | 5.02  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 19  | 0  | 20.39 |       |
| 345 | 730282 |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7   | 0  | 7.11  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 7  |       | 6.62  |
| 346 | 550571 |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6  |       | 5.91  |
| 347 | 1183   |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 4   | 71 |       | 19.24 |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 32  | 15 | 2.08  |       |
| 348 | 449437 |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 14  | 3  | 4.93  |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3   | 12 |       | 3.94  |
| 349 | 8966   |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0   | 7  |       | 7.17  |
| 350 | 6134   |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 22  | 5  | 3.76  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 142 | 40 | 3.81  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 142 | 42 | 3.57  |       |
|     |        | 19,20 (Colon Tumor Tissue vs. Colon Metastasis)  | 22  | 5  | 3.29  |       |
| 351 | 95700  |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1   | 21 |       | 21.52 |
| 352 | 7066   |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0   | 9  |       | 9.76  |
| 353 | 648310 |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0  | 6.34  |       |
| 354 | 730059 |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0  | 6.09  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6  |       | 5.68  |
| 355 | 736014 |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6  |       | 5.68  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0  | 6.09  |       |
| 356 | 646577 |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0  | 6.09  |       |
| 357 | 732254 |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6  |       | 5.68  |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|     |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 0  | 8  |       | 7.92  |
| 358 | 7037   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 9  |       | 9.76  |
| 359 | 7037   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 9  |       | 9.76  |
| 360 | 6937   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 0  | 9.76  |       |
| 361 | 7572   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 8  |       | 8.67  |
| 362 | 388085 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 0  | 9.51  |       |
| 363 | 2676   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 17 |       | 9.22  |
| 364 | 639240 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 0  | 9.51  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66  |       |
| 365 | 650472 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 366 | 727789 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 367 | 2495   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 27 | 5  | 5.27  |       |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 13 | 2  | 9.08  |       |
| 368 | 732254 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|     |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 0  | 8  |       | 7.92  |
| 369 | 5268   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 15 |       | 16.26 |
| 370 | 11881  |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85  |       |
| 371 | 448677 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 1  | 11.63 |       |
| 372 | 1876   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 15 | 3  | 4.88  |       |
| 373 | 3441   |  |    |    |       |       |

Table 5

| SEQ | CLST   | Library Pair A,B  | A  | B  | A/B  | B/A   |
|-----|--------|---|----|----|------|-------|
|     |        |   |    |    |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 4  | 13 |      | 3.52  |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)                                      | 8  | 0  | 7.81 |       |
| 374 | 726134 |   |    |    |      |       |
|     |        |   |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)                                       | 0  | 8  |      | 7.57  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)                                   | 8  | 0  | 8.12 |       |
| 375 | 9048   |   |    |    |      |       |
|     |        |   |    |    |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 7  | 0  | 6.46 |       |
| 376 | 26489  |   |    |    |      |       |
|     |        |   |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)                                      | 1  | 8  |      | 8.2   |
| 377 | 644205 |   |    |    |      |       |
|     |        |   |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                  | 7  | 0  | 7.51 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)                                       | 7  | 0  | 7.4  |       |
| 378 | 468689 |   |    |    |      |       |
|     |        |   |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                  | 6  | 0  | 6.44 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)                                       | 6  | 0  | 6.34 |       |
| 379 | 638971 |   |    |    |      |       |
|     |        |   |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                  | 8  | 0  | 8.59 |       |
| 380 | 10274  |   |    |    |      |       |
|     |        |   |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)                                      | 0  | 7  |      | 7.17  |
| 381 | 6725   |   |    |    |      |       |
|     |        |   |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)                                      | 10 | 0  | 9.76 |       |
| 382 | 2488   |   |    |    |      |       |
|     |        |   |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                  | 0  | 8  |      | 7.45  |
| 383 | 8366   |   |    |    |      |       |
|     |        |   |    |    |      |       |
|     |        | 21,22 (Normal Prostate vs. Prostate Cancer) (Normal Prostate vs. Prostate Cancer) | 2  | 15 |      | 7.63  |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)                                      | 15 | 2  | 7.32 |       |
| 384 | 502683 |   |    |    |      |       |
|     |        |   |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)                                       | 6  | 0  | 6.34 |       |
| 385 | 450914 |   |    |    |      |       |
|     |        |   |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)                                       | 0  | 6  |      | 5.68  |
| 386 | 21205  |   |    |    |      |       |
|     |        |   |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)                                      | 1  | 9  |      | 9.22  |
| 387 | 644205 |   |    |    |      |       |
|     |        |   |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)                                       | 7  | 0  | 7.4  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)                                  | 7  | 0  | 7.51 |       |
| 388 | 5268   |   |    |    |      |       |
|     |        |   |    |    |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 0  | 15 |      | 16.26 |

Table 5

| SEQ | CLST   | Library Pair A,B                                | A   | B  | A/B   | B/A   |
|-----|--------|---|-----|----|-------|-------|
| 389 | 8012   |   |     |    |       |       |
|     |        |   |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 7   | 0  | 6.83  |       |
| 390 | 11270  |   |     |    |       |       |
|     |        |   |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)      | 0   | 6  |       | 6.5   |
| 391 | 10924  |   |     |    |       |       |
|     |        |   |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 6   | 0  | 5.85  |       |
| 393 | 3650   |   |     |    |       |       |
|     |        |   |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 10  | 2  | 4.88  |       |
| 394 | 1655   |   |     |    |       |       |
|     |        |   |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)      | 67  | 2  | 30.9  |       |
|     |        | 21,22 (Normal Prostate vs. Prostate Cancer)     | 116 | 51 | 2.24  |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 0   | 58 |       | 59.45 |
| 395 | 3275   |   |     |    |       |       |
|     |        |   |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 8   | 0  | 7.81  |       |
| 396 | 3355   |   |     |    |       |       |
|     |        |   |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 21  | 7  | 2.93  |       |
| 397 | 2078   |   |     |    |       |       |
|     |        |   |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 11  | 2  | 5.37  |       |
| 398 | 4809   |   |     |    |       |       |
|     |        |   |     |    |       |       |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)        | 3   | 27 |       | 6.44  |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)      | 15  | 1  | 13.84 |       |
| 399 | 6402   |   |     |    |       |       |
|     |        |   |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 10  | 0  | 9.76  |       |
| 400 | 555244 |   |     |    |       |       |
|     |        |   |     |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis) | 0   | 11 |       | 10.83 |
| 401 | 548965 |   |     |    |       |       |
|     |        |   |     |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis) | 4   | 14 |       | 3.45  |
| 402 | 4747   |   |     |    |       |       |
|     |        |   |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)      | 2   | 10 |       | 5.42  |
| 403 | 40208  |   |     |    |       |       |
|     |        |   |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 0   | 6  |       | 6.15  |
| 404 | 14596  |   |     |    |       |       |
|     |        |   |     |    |       |       |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)        | 14  | 6  | 3.26  |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 1   | 17 |       | 17.42 |
| 405 | 7110   |   |     |    |       |       |
|     |        |   |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)    | 4   | 19 |       | 4.87  |
| 406 | 7110   |   |     |    |       |       |
|     |        |   |     |    |       |       |



Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 423 | 380412 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 424 | 642425 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 425 | 405073 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 426 | 174250 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 13 |       | 6.4   |
| 427 | 726281 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 428 | 639029 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 429 | 452245 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 12 |       | 11.82 |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 12 |       | 11.18 |
| 430 | 510254 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 17 | 1  | 17.97 |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88  |
| 431 | 642425 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 432 | 51939  |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 28 | 3  | 9.87  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 28 | 0  | 30.05 |       |
| 433 | 7379   |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 434 | 546632 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 15 | 0  | 15.23 |       |
|     |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 3  | 34 |       | 11.22 |
| 435 | 734827 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
| 436 | 2554   |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 20 | 7  | 2.79  |       |
| 437 | 643285 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |       |



Table 5

| SEQ | CLST   | Library Pair A,B                                 | A   | B   | A/B    | B/A   |
|-----|--------|--|-----|-----|--------|-------|
| 438 | 448770 |  |     |     |        |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0   | 6.44   |       |
| 439 | 375380 |  |     |     |        |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1   | 9   |        | 8.38  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 9   |        | 8.86  |
| 440 | 726134 |  |     |     |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8   | 0   | 8.12   |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 8   |        | 7.57  |
| 441 | 422687 |  |     |     |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10  | 0   | 10.16  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 10  |        | 9.46  |
| 442 | 448436 |  |     |     |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 20  | 2   | 10.16  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 4   | 20  |        | 4.73  |
| 443 | 644893 |  |     |     |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0   | 6.09   |       |
| 444 | 559104 |  |     |     |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6   |        | 5.68  |
| 445 | 551172 |  |     |     |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1   | 10  |        | 9.46  |
| 446 | 724296 |  |     |     |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 128 |        | 121.1 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 128 | 0   | 129.99 |       |
| 447 | 735936 |  |     |     |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 9   |        | 8.51  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9   | 0   | 9.14   |       |
| 448 | 556326 |  |     |     |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 8   |        | 7.88  |
| 449 | 729699 |  |     |     |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6   |        | 5.68  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0   | 6.09   |       |
| 450 | 550694 |  |     |     |        |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 21  | 7   | 3.22   |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 21  | 1   | 22.2   |       |
| 451 | 734738 |  |     |     |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0   | 6.09   |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6   |        | 5.68  |
| 452 | 404502 |  |     |     |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0   | 6.34   |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A   |
|-----|--------|--|----|----|------|-------|
| 453 | 554151 |  |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 15 |      | 13.97 |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 9  |      | 8.51  |
| 454 | 649852 |  |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
| 455 | 734063 |  |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |      | 6.62  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11 |       |
| 456 | 7279   |  |    |    |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |      | 6.5   |
| 457 | 2676   |  |    |    |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 17 |      | 9.22  |
| 458 | 649148 |  |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59 |       |
| 459 | 1953   |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 4  | 48 |      | 12.3  |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 39 | 13 | 2.77 |       |
| 460 | 650108 |  |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66 |       |
| 461 | 515350 |  |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 14 | 0  | 14.8 |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 14 | 3  | 5.01 |       |
| 462 | 402494 |  |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 3  | 13 |      | 4.1   |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 13 | 3  | 4.4  |       |
| 463 | 649148 |  |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59 |       |
| 464 | 833    |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 16 | 3  | 5.2  |       |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 18 | 9  | 2.79 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 3  | 4.23 |       |
| 465 | 139730 |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 9  |      | 9.22  |
| 466 | 453079 |  |    |    |      |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 1  | 8.12 |       |
| 467 | 546705 |  |    |    |      |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91  |
| 468 | 644903 |  |    |    |      |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 469 | 732254 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|     |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 0  | 8  |       | 7.92  |
| 470 | 561180 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 2  | 5.81  |       |
| 471 | 732254 |  |    |    |       |       |
|     |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 0  | 8  |       | 7.92  |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 472 | 449204 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 14 |       | 13.04 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 14 |       | 4.6   |
| 473 | 185651 |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 7  |       | 7.17  |
| 474 | 639029 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 475 | 452986 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 1  | 8.46  |       |
| 476 | 729779 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |       |
| 477 | 646248 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 478 | 650448 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 479 | 642049 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 480 | 728273 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
| 481 | 446139 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 13 | 0  | 13.74 |       |
|     |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 12 | 0  | 13.71 |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 13 | 0  | 13.95 |       |
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 12 | 0  | 10.26 |       |
| 482 | 2783   |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 5  | 40 |       | 8.2   |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 27 | 6  | 4.15  |       |
| 483 | 642906 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 484 | 8332   |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85  |       |
| 485 | 453470 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 12 | 1  | 12.88 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 1  | 12.68 |       |
| 486 | 552277 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 8  |       | 7.45  |
| 487 | 464029 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 9  |       | 8.86  |
| 489 | 649722 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 490 | 612572 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 491 | 385980 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 27 | 12 | 2.28  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 12 |       | 5.59  |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 2  | 27 |       | 12.77 |
| 492 | 141185 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
| 493 | 463824 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 494 | 446139 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 13 | 0  | 13.74 |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 13 | 0  | 13.95 |       |
|     |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 12 | 0  | 13.71 |       |
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 12 | 0  | 10.26 |       |
| 495 | 725994 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 496 | 736679 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 497 | 551718 |  |    |    |       |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A   | B  | A/B   | B/A  |
|-----|--------|--|-----|----|-------|------|
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 8  |       | 7.45 |
| 498 | 640525 |  |     |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7   | 0  | 7.4   |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0  | 7.51  |      |
| 499 | 645210 |  |     |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10  | 1  | 10.57 |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10  | 0  | 10.73 |      |
| 500 | 6567   |  |     |    |       |      |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10  | 0  | 9.76  |      |
| 501 | 646146 |  |     |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0  | 6.09  |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8   | 0  | 8.59  |      |
| 502 | 4934   |  |     |    |       |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1   | 9  |       | 9.76 |
| 503 | 450791 |  |     |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 18  | 6  | 3.17  |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 18  | 3  | 6.44  |      |
| 504 | 227936 |  |     |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 8  |       | 7.57 |
| 505 | 9436   |  |     |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 4   | 15 |       | 3.69 |
| 506 | 2557   |  |     |    |       |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 23  | 8  | 2.65  |      |
| 507 | 11356  |  |     |    |       |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0   | 6  |       | 6.5  |
| 508 | 7571   |  |     |    |       |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0   | 8  |       | 8.67 |
| 509 | 558116 |  |     |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6  |       | 5.91 |
| 510 | 216574 |  |     |    |       |      |
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 15  | 2  | 6.41  |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 107 | 29 | 3.96  |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 107 | 29 | 3.9   |      |
| 511 | 455145 |  |     |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44  |      |
| 512 | 649148 |  |     |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8   | 0  | 8.59  |      |
| 513 | 648996 |  |     |    |       |      |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A   |
|-----|--------|--|----|----|------|-------|
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |       |
| 514 | 304253 |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
| 515 | 649717 |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
| 516 | 5838   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 9  |      | 9.76  |
| 517 | 454050 |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 1  | 8.59 |       |
| 518 | 557903 |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |      | 8.51  |
| 519 | 1724   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 24 |      | 4.1   |
| 520 | 734803 |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
| 521 | 557948 |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 11 |      | 10.83 |
| 522 | 5838   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 9  |      | 9.76  |
| 523 | 2334   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
| 524 | 450953 |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 14 |      | 6.52  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 14 |      | 13.79 |
| 525 | 4840   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 18 | 6  | 2.93 |       |
| 526 | 728421 |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
| 527 | 4747   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 10 |      | 5.42  |
| 528 | 648934 |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46 |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59 |       |
| 529 | 1787   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 17 | 36 |      | 2.3   |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A   | B  | A/B   | B/A   |
|-----|--------|--|-----|----|-------|-------|
| 530 | 558098 |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0  | 6.34  |       |
| 531 | 1655   |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0   | 58 |       | 59.45 |
|     |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 116 | 51 | 2.24  |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 67  | 2  | 30.9  |       |
| 532 | 158601 |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1   | 10 |       | 10.25 |
| 533 | 185486 |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0   | 13 |       | 13.32 |
| 534 | 7110   |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 4   | 19 |       | 4.87  |
| 535 | 2543   |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 23  | 7  | 3.03  |       |
| 536 | 115762 |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 16  | 5  | 3.15  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6  |       | 5.68  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 7  |       | 6.52  |
| 537 | 696    |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 24  | 87 |       | 3.93  |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 37  | 13 | 2.78  |       |
| 538 | 1948   |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 37  | 15 | 2.41  |       |
| 539 | 696    |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 24  | 87 |       | 3.93  |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 37  | 13 | 2.78  |       |
| 540 | 696    |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 37  | 13 | 2.78  |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 24  | 87 |       | 3.93  |
| 541 | 380477 |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0  | 7.51  |       |
| 542 | 638799 |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10  | 0  | 10.73 |       |
| 543 | 551982 |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6  |       | 5.91  |
| 544 | 551982 |  |     |    |       |       |
|     |        |  |     |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6  |       | 5.91  |
| 545 | 521840 |  |     |    |       |       |
|     |        |  |     |    |       |       |

Table 5



Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 546 | 561180 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 2  | 5.81  |       |
| 547 | 556245 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 548 | 449792 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 19,20 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 5  |       | 6.68  |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 3  | 13 |       | 4.1   |
| 549 | 549722 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 550 | 612572 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 551 | 551235 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89  |
| 552 | 449701 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 17 | 1  | 17.26 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 17 |       | 16.08 |
| 553 | 375380 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 9  |       | 8.86  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 9  |       | 8.38  |
| 554 | 56940  |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 8  |       | 7.45  |
| 555 | 549160 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
| 556 | 554151 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 15 |       | 13.97 |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 9  |       | 8.51  |
| 557 | 727331 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 558 | 551502 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 22 | 7  | 3.32  |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 19 |       | 2.67  |
| 559 | 612572 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 560 | 701221 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 561 | 378041 |  |    |    |       |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 13 | 4  | 3.3   |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 13 |       | 12.3  |
| 562 | 503491 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 563 | 452833 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
| 564 | 640974 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66  |       |
| 565 | 735326 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 566 | 555944 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 567 | 447532 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 0  | 11.63 |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 11 | 1  | 11.81 |       |
| 568 | 455598 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 569 | 555734 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 10 |       | 9.32  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 10 |       | 9.85  |
| 570 | 446663 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 32 |       | 5.25  |
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 8  |       | 9.36  |
|     |        | 19,20 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 8  |       | 10.7  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 14 | 32 |       | 2.13  |
| 571 | 449862 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
| 572 | 549591 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 24 |       | 3.38  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 24 |       | 11.18 |
| 573 | 553877 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88  |
| 574 | 553501 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 14 | 1  | 14.8  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 14 | 3  | 5.01  |       |
| 575 | 1905   |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 7  | 21 |       | 3.25  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
| 576 | 446599 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 13 | 2  | 6.87  |       |
| 577 | 559409 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 578 | 551982 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 579 | 559057 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
| 580 | 446760 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 22 | 7  | 3.19  |       |
| 581 | 551502 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 19 |       | 2.67  |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 22 | 7  | 3.32  |       |
| 582 | 446531 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 583 | 506744 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 8  |       | 7.88  |
| 584 | 401849 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 15 |       | 14.77 |
| 585 | 453848 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 2  | 14 |       | 6.62  |
| 586 | 456764 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 1  | 10.16 |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 14 | 1  | 15.03 |       |
| 587 | 446371 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 588 | 406413 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 9  |       | 8.86  |
| 589 | 555103 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
|     |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 0  | 6  |       | 5.94  |
| 590 | 735292 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |       | 8.51  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |       |
| 591 | 558534 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89  |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
| 592 | 727181 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 593 | 551117 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 594 | 464040 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 595 | 446371 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 596 | 728408 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 12 | 0  | 12.19 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 12 |       | 11.35 |
| 597 | 649259 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
| 598 | 15414  |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 9  |       | 8.38  |
| 599 | 639240 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 0  | 9.51  |       |
| 600 | 549722 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 601 | 561499 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88  |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 1  | 8.46  |       |
| 602 | 639029 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 603 | 449512 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 4  | 14 |       | 3.26  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 14 |       | 13.79 |
| 604 | 446987 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |       |
| 605 | 466302 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 1  | 9.51  |       |
| 606 | 553802 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 9  |       | 8.38  |
| 607 | 639662 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A  |
|-----|--------|--|----|----|------|------|
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4  |      |
| 608 | 551527 |  |    |    |      |      |
|     |        |  |    |    |      |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |      | 6.52 |
| 609 | 730389 |  |    |    |      |      |
|     |        |  |    |    |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14 |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |      | 8.51 |
| 610 | 640974 |  |    |    |      |      |
|     |        |  |    |    |      |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66 |      |
| 611 | 417155 |  |    |    |      |      |
|     |        |  |    |    |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |      |
| 612 | 417155 |  |    |    |      |      |
|     |        |  |    |    |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |      |
| 613 | 451784 |  |    |    |      |      |
|     |        |  |    |    |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |      | 6.89 |
| 614 | 649152 |  |    |    |      |      |
|     |        |  |    |    |      |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |      |
| 615 | 450867 |  |    |    |      |      |
|     |        |  |    |    |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4  |      |
| 616 | 143436 |  |    |    |      |      |
|     |        |  |    |    |      |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 21 | 9  | 2.5  |      |
| 617 | 549395 |  |    |    |      |      |
|     |        |  |    |    |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 13 |      | 12.8 |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 13 |      | 6.06 |
| 618 | 639273 |  |    |    |      |      |
|     |        |  |    |    |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 0  | 9.51 |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66 |      |
| 619 | 506744 |  |    |    |      |      |
|     |        |  |    |    |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4  |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 8  |      | 7.88 |
| 620 | 736595 |  |    |    |      |      |
|     |        |  |    |    |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68 |
| 621 | 230995 |  |    |    |      |      |
|     |        |  |    |    |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |      | 6.62 |
| 622 | 451784 |  |    |    |      |      |
|     |        |  |    |    |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |      | 6.89 |
| 623 | 226324 |  |    |    |      |      |
|     |        |  |    |    |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91 |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A   | B  | A/B    | B/A  |
|-----|--------|--|-----|----|--------|------|
| 624 | 449617 |  |     |    |        |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7   | 18 |        | 2.53 |
| 625 | 451092 |  |     |    |        |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 9  |        | 8.86 |
| 626 | 546642 |  |     |    |        |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11  | 0  | 11.17  |      |
| 627 | 553736 |  |     |    |        |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2   | 10 |        | 4.92 |
| 628 | 394413 |  |     |    |        |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 113 | 3  | 39.81  |      |
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 21  | 0  | 17.95  |      |
|     |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 21  | 2  | 12     |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 113 | 0  | 121.29 |      |
| 629 | 556326 |  |     |    |        |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 8  |        | 7.88 |
| 630 | 448606 |  |     |    |        |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3   | 20 |        | 6.21 |
| 631 | 394413 |  |     |    |        |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 113 | 0  | 121.29 |      |
|     |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 21  | 2  | 12     |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 113 | 3  | 39.81  |      |
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 21  | 0  | 17.95  |      |
| 632 | 645633 |  |     |    |        |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0  | 7.51   |      |
| 633 | 551634 |  |     |    |        |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6  |        | 5.91 |
| 634 | 556326 |  |     |    |        |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 8  |        | 7.88 |
| 635 | 540787 |  |     |    |        |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7   | 0  | 7.4    |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0  | 7.51   |      |
| 636 | 648872 |  |     |    |        |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0  | 6.34   |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44   |      |
| 637 | 643804 |  |     |    |        |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0  | 6.34   |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44   |      |
| 638 | 446139 |  |     |    |        |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 13  | 0  | 13.95  |      |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
|     |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 12 | 0  | 13.71 |       |
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 12 | 0  | 10.26 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 13 | 0  | 13.74 |       |
| 639 | 640356 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |       |
| 640 | 379186 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 641 | 454927 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 14 |       | 4.6   |
| 642 | 401849 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 15 |       | 14.77 |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
| 643 | 452414 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 17 | 0  | 17.97 |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 17 | 0  | 18.25 |       |
| 644 | 446789 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 16 | 5  | 3.38  |       |
| 645 | 189561 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |       | 8.51  |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 1  | 14 |       | 10.02 |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 9  |       | 8.38  |
| 646 | 640323 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 647 | 558116 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 648 | 468109 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 649 | 481441 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 12 | 0  | 12.19 |       |
| 650 | 449956 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 1  | 10.16 |       |
| 651 | 727224 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57  |
| 652 | 551907 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
| 653 | 447532 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 0  | 11.63 |       |



Table 5

| SEQ | CLST   | Library Pair A,B                                 | A   | B  | A/B    | B/A  |
|-----|--------|--|-----|----|--------|------|
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 11  | 1  | 11.81  |      |
| 654 | 447532 |  |     |    |        |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 11  | 1  | 11.81  |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11  | 0  | 11.63  |      |
| 655 | 558454 |  |     |    |        |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 7  |        | 6.52 |
| 656 | 502683 |  |     |    |        |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0  | 6.34   |      |
| 657 | 446909 |  |     |    |        |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2   | 12 |        | 5.91 |
| 658 | 452506 |  |     |    |        |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7   | 0  | 7.4    |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6  |        | 5.91 |
| 659 | 449792 |  |     |    |        |      |
|     |        | 19,20 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 5  |        | 6.68 |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 3   | 13 |        | 4.1  |
| 660 | 549395 |  |     |    |        |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2   | 13 |        | 6.06 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 13 |        | 12.8 |
| 661 | 234653 |  |     |    |        |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 18 |        | 2.95 |
| 662 | 453911 |  |     |    |        |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6  |        | 5.68 |
| 663 | 452071 |  |     |    |        |      |
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 14  | 0  | 11.97  |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 109 | 1  | 115.21 |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 109 | 0  | 117    |      |
|     |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 14  | 0  | 16     |      |
| 664 | 451032 |  |     |    |        |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0  | 6.34   |      |
| 665 | 446680 |  |     |    |        |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 29  | 84 |        | 2.7  |
|     |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 40  | 94 |        | 2.33 |
| 666 | 641884 |  |     |    |        |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7   | 0  | 7.11   |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8   | 0  | 8.59   |      |
| 667 | 452800 |  |     |    |        |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3   | 13 |        | 4.04 |
| 668 | 461835 |  |     |    |        |      |
|     |        |  |     |    |        |      |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A   | B  | A/B    | B/A   |
|-----|--------|--|-----|----|--------|-------|
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7   | 0  | 7.4    |       |
| 669 | 548965 |  |     |    |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 4   | 14 |        | 3.45  |
| 670 | 734793 |  |     |    |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 9  |        | 8.51  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9   | 0  | 9.14   |       |
| 671 | 539955 |  |     |    |        |       |
|     |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 3   | 47 |        | 15.51 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 24  | 0  | 24.37  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 11  | 0  | 11.81  |       |
| 672 | 561892 |  |     |    |        |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 7  |        | 6.52  |
| 673 | 562292 |  |     |    |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6  |        | 5.91  |
| 674 | 420686 |  |     |    |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 8  |        | 7.88  |
| 675 | 9436   |  |     |    |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 4   | 15 |        | 3.69  |
| 676 | 1013   |  |     |    |        |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 40  | 84 |        | 2.28  |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0  | 6.34   |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44   |       |
| 677 | 412364 |  |     |    |        |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44   |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0  | 6.34   |       |
| 678 | 44424  |  |     |    |        |       |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 4   | 40 |        | 7.16  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 25  | 90 |        | 3.35  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 41  | 90 |        | 2.16  |
| 679 | 394413 |  |     |    |        |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 113 | 0  | 121.29 |       |
|     |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 21  | 2  | 12     |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 113 | 3  | 39.81  |       |
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 21  | 0  | 17.95  |       |
| 680 | 449617 |  |     |    |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7   | 18 |        | 2.53  |
| 681 | 455032 |  |     |    |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6  |        | 5.68  |
| 682 | 185400 |  |     |    |        |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1   | 62 |        | 63.55 |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A   | B   | A/B   | B/A   |
|-----|--------|--|-----|-----|-------|-------|
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 9   |       | 8.86  |
| 683 | 453911 |  |     |     |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6   |       | 5.68  |
| 684 | 650297 |  |     |     |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0   | 6.44  |       |
| 685 | 185400 |  |     |     |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1   | 62  |       | 63.55 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 9   |       | 8.86  |
| 686 | 449512 |  |     |     |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 4   | 14  |       | 3.26  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 14  |       | 13.79 |
| 687 | 44424  |  |     |     |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 41  | 90  |       | 2.16  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 25  | 90  |       | 3.35  |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 4   | 40  |       | 7.16  |
| 688 | 556216 |  |     |     |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 7   |       | 6.89  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 7   |       | 6.52  |
| 689 | 448677 |  |     |     |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11  | 1   | 11.63 |       |
| 690 | 375380 |  |     |     |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1   | 9   |       | 8.38  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 9   |       | 8.86  |
| 691 | 379341 |  |     |     |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3   | 14  |       | 4.35  |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 2   | 21  |       | 7.51  |
| 692 | 376988 |  |     |     |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 8   |       | 7.88  |
| 693 | 559806 |  |     |     |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6   |       | 5.91  |
| 694 | 550195 |  |     |     |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 11  |       | 10.83 |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2   | 11  |       | 5.12  |
| 695 | 562221 |  |     |     |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8   | 0   | 8.46  |       |
| 696 | 211    |  |     |     |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 109 | 206 |       | 2.05  |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 121 | 43  | 2.75  |       |
| 697 | 6751   |  |     |     |       |       |
|     |        |  |     |     |       |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 11 |       | 11.27 |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 5  | 0  | 6.99  |       |
| 698 | 6751   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 5  | 0  | 6.99  |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 11 |       | 11.27 |
| 700 | 2883   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 9  | 21 |       | 2.39  |
| 701 | 9784   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 6  |       | 6.15  |
| 702 | 649722 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 704 | 10340  |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85  |       |
| 705 | 1649   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 15 | 1  | 14.63 |       |
| 706 | 4325   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 0  | 6.83  |       |
| 707 | 10882  |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 20 |       | 3.42  |
| 708 | 10342  |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 0  | 6.83  |       |
| 709 | 6474   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 710 | 10340  |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85  |       |
| 711 | 734723 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |       | 8.51  |
| 712 | 452142 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 10 |       | 9.46  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 2  | 5.08  |       |
| 713 | 185432 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 26 |       | 26.65 |
| 714 | 11456  |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 715 | 508892 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 10 |       | 9.32  |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 10 |       | 4.92  |
| 716 | 67     |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 23 | 0  | 22.44 |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 32 |       | 34.69 |
| 717 | 2636   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 7  | 1  | 9.78  |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 8  | 19 |       | 2.57  |
| 718 | 735028 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 719 | 1924   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 8  | 21 |       | 2.85  |
| 720 | 640116 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 19 | 4  | 5.02  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 19 | 0  | 20.39 |       |
| 721 | 6546   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 9  |       | 9.76  |
| 722 | 730866 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57  |
| 723 | 4829   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 7  |       | 7.59  |
| 724 | 546632 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 3  | 34 |       | 11.22 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 15 | 0  | 15.23 |       |
| 725 | 549934 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 3  | 3.88  |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 20 |       | 6.56  |
|     |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 8  | 0  | 7.87  |       |
| 726 | 649655 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 12 | 0  | 12.19 |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 727 | 62016  |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 728 | 2783   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 27 | 6  | 4.15  |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 5  | 40 |       | 8.2   |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 729 | 3876   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 9  | 26 |       | 2.94  |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A   | B   | A/B    | B/A    |
|-----|--------|--|-----|-----|--------|--------|
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3   | 14  |        | 4.35   |
| 730 | 20036  |  |     |     |        |        |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1   | 13  |        | 12.11  |
| 731 | 644032 |  |     |     |        |        |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 124 | 0   | 125.92 |        |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7   | 124 |        | 16.76  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0   | 7.51   |        |
| 732 | 451636 |  |     |     |        |        |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 8   |        | 7.88   |
| 733 | 3428   |  |     |     |        |        |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 20  | 0   | 19.51  |        |
| 734 | 643954 |  |     |     |        |        |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0   | 6.09   |        |
| 735 | 456506 |  |     |     |        |        |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 17  | 7   | 2.61   |        |
| 736 | 449269 |  |     |     |        |        |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 26  | 7   | 3.99   |        |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 26  | 5   | 5.5    |        |
| 737 | 732712 |  |     |     |        |        |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 7   |        | 6.62   |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7   | 0   | 7.11   |        |
| 738 | 696    |  |     |     |        |        |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 24  | 87  |        | 3.93   |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 37  | 13  | 2.78   |        |
| 739 | 456528 |  |     |     |        |        |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 7   |        | 6.62   |
| 740 | 4043   |  |     |     |        |        |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1   | 9   |        | 9.76   |
| 741 | 3639   |  |     |     |        |        |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 12  | 3   | 3.9    |        |
| 742 | 1024   |  |     |     |        |        |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0   | 292 |        | 299.28 |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 41  | 11  | 5.21   |        |
| 743 | 1247   |  |     |     |        |        |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 51  | 15  | 3.32   |        |
| 744 | 4934   |  |     |     |        |        |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1   | 9   |        | 9.76   |
| 745 | 901    |  |     |     |        |        |
|     |        |  |     |     |        |        |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|-----|--------|--|----|----|-------|------|
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 56 | 5  | 10.93 |      |
| 746 | 452726 |  |    |    |       |      |
|     |        |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 1  | 8.12  |      |
| 747 | 725825 |  |    |    |       |      |
|     |        |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57 |
| 748 | 456808 |  |    |    |       |      |
|     |        |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 42 |       | 5.68 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 42 | 1  | 42.65 |      |
| 749 | 729295 |  |    |    |       |      |
|     |        |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
| 750 | 551907 |  |    |    |       |      |
|     |        |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |      |
| 751 | 551527 |  |    |    |       |      |
|     |        |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52 |
| 752 | 7098   |  |    |    |       |      |
|     |        |  |    |    |       |      |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 0  | 9.76  |      |
| 753 | 4589   |  |    |    |       |      |
|     |        |  |    |    |       |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 14 | 2  | 6.46  |      |
| 754 | 554812 |  |    |    |       |      |
|     |        |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 8  |       | 7.45 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88 |
| 755 | 3114   |  |    |    |       |      |
|     |        |  |    |    |       |      |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 9  | 1  | 8.78  |      |
| 756 | 6031   |  |    |    |       |      |
|     |        |  |    |    |       |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 9  | 1  | 8.3   |      |
| 757 | 185628 |  |    |    |       |      |
|     |        |  |    |    |       |      |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 6  |       | 6.15 |
| 758 | 24719  |  |    |    |       |      |
|     |        |  |    |    |       |      |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 4  | 26 |       | 6.66 |
|     |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 4  | 14 |       | 3.56 |
| 759 | 3428   |  |    |    |       |      |
|     |        |  |    |    |       |      |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 20 | 0  | 19.51 |      |
| 760 | 2676   |  |    |    |       |      |
|     |        |  |    |    |       |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 17 |       | 9.22 |
| 761 | 649148 |  |    |    |       |      |
|     |        |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |      |



Table 5

| SEQ | CLST   | Library Pair A,B                                 | A   | B  | A/B   | B/A   |
|-----|--------|--|-----|----|-------|-------|
| 762 | 234605 |  |     |    |       |       |
|     |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 17  | 5  | 3.43  |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 39  | 14 | 2.83  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 32  | 14 | 2.45  |       |
| 763 | 2224   |  |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 44  | 8  | 5.37  |       |
| 764 | 185642 |  |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0   | 7  |       | 7.17  |
| 765 | 649655 |  |     |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44  |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 12  | 0  | 12.19 |       |
| 766 | 2854   |  |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 31  | 3  | 10.08 |       |
| 767 | 453470 |  |     |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12  | 1  | 12.68 |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 12  | 1  | 12.88 |       |
| 768 | 11012  |  |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0   | 6  |       | 6.5   |
| 769 | 535208 |  |     |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0  | 6.34  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44  |       |
| 770 | 448606 |  |     |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3   | 20 |       | 6.21  |
| 771 | 12304  |  |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 5   | 17 |       | 3.48  |
| 772 | 2756   |  |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 28  | 8  | 3.23  |       |
| 773 | 367    |  |     |    |       |       |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 30  | 99 |       | 2.36  |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 105 | 24 | 4.27  |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 19  | 97 |       | 5.53  |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 13  | 4  | 3.44  |       |
| 774 | 11351  |  |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0   | 6  |       | 6.5   |
| 775 | 6858   |  |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0   | 8  |       | 8.67  |
| 776 | 7750   |  |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1   | 14 |       | 14.35 |
| 777 | 6923   |  |     |    |       |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A   |
|-----|--------|--|----|----|------|-------|
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85 |       |
| 778 | 11552  |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85 |       |
| 779 | 12448  |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 7  |      | 7.17  |
| 781 | 10342  |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 0  | 6.83 |       |
| 782 | 9026   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 7  | 0  | 6.46 |       |
| 783 | 10342  |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 0  | 6.83 |       |
| 784 | 6455   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85 |       |
| 785 | 6455   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85 |       |
| 786 | 3416   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 11 |      | 11.93 |
| 787 | 3416   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 11 |      | 11.93 |
| 788 | 2889   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 8  | 19 |      | 2.57  |
| 789 | 7393   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 8  |      | 8.2   |
| 790 | 14390  |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 2  | 43 |      | 22.04 |
| 791 | 661    |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 77 | 10 | 7.51 |       |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 0  | 10 |      | 7.16  |
| 792 | 452992 |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51 |       |
| 793 | 1943   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 16 | 4  | 3.9  |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 9  | 29 |      | 3.49  |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 19 |      | 3     |
| 794 | 2027   |  |    |    |      |       |
|     |        |  |    |    |      |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 12 | 35 |      | 2.99  |
| 795 | 5482   |  |    |    |      |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
|     |        |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 8  |       | 8.67  |
| 796 | 650493 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 797 | 640318 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 798 | 646309 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 799 | 4316   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 6  |       | 6.15  |
| 800 | 449701 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 17 | 1  | 17.26 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 17 |       | 16.08 |
| 801 | 560367 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |       | 8.51  |
| 802 | 9997   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 0  | 6.83  |       |
| 803 | 649106 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 804 | 461835 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs Colon Tumor Tissue)       | 7  | 0  | 7.4   |       |
| 805 | 640590 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 1  | 9.51  |       |
| 806 | 648340 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 807 | 554812 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 8  |       | 7.45  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88  |
| 808 | 447035 |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 1  | 8.12  |       |
| 809 | 1208   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 13 | 0  | 12.68 |       |
| 810 | 3114   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 9  | 1  | 8.78  |       |
| 811 | 3114   |  |    |    |       |       |
|     |        |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 9  | 1  | 8.78  |       |
| 812 | 734078 |  |    |    |       |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 813 | 450323 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 8  |       | 7.45  |
| 814 | 11567  |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 0  | 6.83  |       |
| 815 | 11567  |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 0  | 6.83  |       |
| 816 | 6660   |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 7  | 0  | 6.46  |       |
| 817 | 9026   |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 7  | 0  | 6.46  |       |
| 818 | 185539 |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 10 |       | 10.25 |
| 819 | 3224   |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 17 | 2  | 7.84  |       |
| 820 | 95700  |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1  | 21 |       | 21.52 |
| 821 | 4439   |  |    |    |       |       |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 10 | 2  | 6.99  |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 15 | 2  | 6.92  |       |
| 822 | 3428   |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 20 | 0  | 19.51 |       |
| 823 | 1456   |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 9  | 22 |       | 2.65  |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 50 | 9  | 5.42  |       |
| 824 | 11343  |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 825 | 729206 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 10 |       | 9.46  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 0  | 10.16 |       |
| 826 | 558371 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 2  | 5.28  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 2  | 5.37  |       |
| 827 | 451589 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
| 828 | 404475 |  |    |    |       |       |
|     |        |  |    |    |       |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 2  | 5.59  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 19 | 2  | 10.2  |       |
| 829 | 734582 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 830 | 729779 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |       |
| 831 | 555244 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 11 |       | 10.83 |
| 832 | 449269 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 26 | 7  | 3.99  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 26 | 5  | 5.5   |       |
| 833 | 4609   |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 12 |       | 6.5   |
| 834 | 640318 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 835 | 729851 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
| 836 | 11028  |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 837 | 643924 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 838 | 630259 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
| 839 | 11286  |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 840 | 185651 |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 7  |       | 7.17  |
| 841 | 7379   |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 842 | 728408 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 12 |       | 11.35 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 12 | 0  | 12.19 |       |
| 843 | 646309 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 844 | 405073 |  |    |    |       |       |

Table 5

| SEQ | CLST   | Library Pair A,B  | A   | B  | A/B   | B/A   |
|-----|--------|---|-----|----|-------|-------|
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 6   | 0  | 6.34  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)  | 6   | 0  | 6.44  |       |
| 845 | 185489 |   |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)  | 0   | 12 |       | 12.3  |
| 846 | 447326 |   |     |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)  | 6   | 0  | 6.44  |       |
| 847 | 11006  |   |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 0   | 6  |       | 6.5   |
| 848 | 6863   |   |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 1   | 8  |       | 8.67  |
| 849 | 11351  |   |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 0   | 6  |       | 6.5   |
| 850 | 401553 |   |     |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)  | 8   | 0  | 8.59  |       |
| 851 | 504513 |   |     |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)  | 6   | 0  | 6.44  |       |
| 852 | 645979 |   |     |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 7   | 0  | 7.11  |       |
| 853 | 6923   |   |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)  | 6   | 0  | 5.85  |       |
| 854 | 1924   |   |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 8   | 21 |       | 2.85  |
| 855 | 5838   |   |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 1   | 9  |       | 9.76  |
| 856 | 2062   |   |     |    |       |       |
|     |        | 13,14 (bFGF Treated HMVEC vs. VEGF-Treated HMVEC) (bFGF Treated HMVEC vs. VEGF-Treated HMVEC) | 0   | 7  |       | 6.88  |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)  | 8   | 19 |       | 2.43  |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 9   | 39 |       | 4.7   |
| 857 | 447388 |   |     |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)  | 142 | 4  | 38.1  |       |
|     |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)   | 18  | 0  | 20.57 |       |
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis)  | 18  | 0  | 15.39 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 142 | 2  | 75.05 |       |
| 858 | 12419  |   |     |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)  | 0   | 15 |       | 15.37 |
| 859 | 3224   |   |     |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 17  | 2  | 7.84  |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|-----|--------|--|----|----|-------|------|
| 860 | 5474   |  |    |    |       |      |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 5  | 17 |       | 3.48 |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 8  |       | 8.67 |
| 861 | 3522   |  |    |    |       |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 3  | 12 |       | 4.34 |
| 862 | 731785 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
| 863 | 3765   |  |    |    |       |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 19 | 6  | 2.92  |      |
| 864 | 640323 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |      |
| 865 | 379105 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57 |
| 866 | 448029 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 1  | 10.16 |      |
| 867 | 650476 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
| 868 | 640525 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
| 869 | 390124 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 18 |       | 2.79 |
|     |        | 19,20 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 5.98  |      |
|     |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 0  | 8  |       | 7    |
| 870 | 464029 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 9  |       | 8.86 |
| 871 | 468109 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 872 | 21669  |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89 |
| 873 | 651088 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 874 | 2737   |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 14 |       | 4.6  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 4  | 14 |       | 3.26 |
| 875 | 556421 |  |    |    |       |      |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A   | B  | A/B    | B/A   |
|-----|--------|--|-----|----|--------|-------|
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12  | 1  | 12.68  |       |
| 876 | 452245 |  |     |    |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 12 |        | 11.82 |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1   | 12 |        | 11.18 |
| 877 | 447539 |  |     |    |        |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8   | 0  | 8.59   |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8   | 1  | 8.46   |       |
| 878 | 546642 |  |     |    |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11  | 0  | 11.17  |       |
| 879 | 236368 |  |     |    |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 271 | 16 | 17.9   |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 271 | 0  | 290.88 |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 16  | 0  | 16.25  |       |
|     |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 9   | 1  | 10.29  |       |
|     |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 9   | 0  | 7.69   |       |
| 880 | 644523 |  |     |    |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0  | 6.09   |       |
| 881 | 729173 |  |     |    |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8   | 0  | 8.12   |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 8  |        | 7.57  |
| 882 | 8315   |  |     |    |        |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6   | 0  | 5.85   |       |
| 883 | 450463 |  |     |    |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 31  | 13 | 2.52   |       |
| 884 | 650856 |  |     |    |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0  | 6.09   |       |
| 885 | 648109 |  |     |    |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8   | 1  | 8.46   |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8   | 0  | 8.59   |       |
| 886 | 726644 |  |     |    |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 18  | 0  | 18.28  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 18 |        | 17.03 |
| 887 | 727224 |  |     |    |        |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8   | 0  | 8.12   |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 8  |        | 7.57  |
| 888 | 557906 |  |     |    |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12  | 3  | 4.23   |       |
| 889 | 502683 |  |     |    |        |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0  | 6.34   |       |
| 890 | 728408 |  |     |    |        |       |



Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 12 |       | 11.35 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 12 | 0  | 12.19 |       |
| 891 | 647952 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 892 | 639991 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 893 | 735346 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 894 | 102655 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 14 | 0  | 14.8  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 14 | 0  | 15.03 |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 4  | 33 |       | 8.46  |
| 895 | 553629 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 4  | 17 |       | 4.19  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 4  | 17 |       | 3.96  |
| 896 | 1609   |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 3  | 58 |       | 20.96 |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 2  | 4.88  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 15 | 3  | 5.37  |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 14 | 3  | 4.74  |       |
| 897 | 641884 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 898 | 648872 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 899 | 644242 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 900 | 63559  |  |    |    |       |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 2  | 12 |       | 6.15  |
| 901 | 550108 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 37 |       | 5.75  |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 19 |       | 3     |
| 902 | 374306 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 10 |       | 9.32  |
| 903 | 5838   |  |    |    |       |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 9  |       | 9.76  |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|-----|--------|--|----|----|-------|------|
| 904 | 645530 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 2  | 5.28  |      |
| 905 | 649732 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
| 906 | 649143 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 907 | 7571   |  |    |    |       |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 8  |       | 8.67 |
| 908 | 4572   |  |    |    |       |      |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 2  | 11 |       | 5.64 |
| 909 | 2147   |  |    |    |       |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 31 | 6  | 4.77  |      |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 12 | 2  | 5.85  |      |
| 910 | 462659 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |      |
| 911 | 727723 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
| 912 | 2636   |  |    |    |       |      |
|     |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 7  | 1  | 9.78  |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 8  | 19 |       | 2.57 |
| 913 | 500959 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |      |
| 914 | 3428   |  |    |    |       |      |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 20 | 0  | 19.51 |      |
| 915 | 734929 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
| 916 | 453592 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 19 | 6  | 3.35  |      |
| 917 | 15414  |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 9  |       | 8.38 |
| 918 | 648959 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |      |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|-----|--------|--|----|----|-------|------|
| 919 | 453470 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 12 | 1  | 12.88 |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 1  | 12.68 |      |
| 920 | 649272 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |      |
| 921 | 1699   |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 10 |       | 9.46 |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 37 | 12 | 3.01  |      |
| 922 | 649719 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 923 | 562805 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 924 | 452204 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88 |
|     |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 3  | 13 |       | 4.29 |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 1  | 9.51  |      |
| 925 | 549178 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 10 |       | 9.85 |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 10 |       | 9.32 |
| 926 | 639177 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 927 | 562550 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 928 | 561807 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88 |
| 929 | 641373 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 15 | 0  | 16.1  |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 15 | 3  | 5.28  |      |
| 930 | 514418 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 9  |       | 8.86 |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 9  |       | 8.38 |
| 931 | 567078 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 1  | 11.17 |      |
| 932 | 643061 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 1  | 8.46  |      |
| 933 | 549160 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52 |
| 934 | 449269 |  |    |    |       |      |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A   |
|-----|--------|--|----|----|------|-------|
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 26 | 7  | 3.99 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 26 | 5  | 5.5  |       |
| 935 | 453082 |  |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |       |
| 936 | 418135 |  |    |    |      |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 23 |      | 3.77  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 23 |      | 21.43 |
| 937 | 2783   |  |    |    |      |       |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 27 | 6  | 4.15 |       |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 5  | 40 |      | 8.2   |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |       |
| 938 | 549435 |  |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 14 | 2  | 7.4  |       |
| 939 | 446614 |  |    |    |      |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11 |       |
| 940 | 449477 |  |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 12 |      | 5.59  |
| 941 | 454380 |  |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 3  | 14 |      | 4.42  |
| 942 | 450914 |  |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
| 943 | 736860 |  |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
| 944 | 727224 |  |    |    |      |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |      | 7.57  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12 |       |
| 945 | 644242 |  |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |       |
| 946 | 562550 |  |    |    |      |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91  |
| 947 | 649148 |  |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59 |       |
| 948 | 375889 |  |    |    |      |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |      | 6.52  |
| 949 | 449437 |  |    |    |      |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|-----|--------|--|----|----|-------|------|
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 14 | 3  | 4.93  |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 12 |       | 3.94 |
| 950 | 449044 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |      |
| 951 | 555318 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 12 |       | 5.91 |
| 952 | 456764 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 1  | 10.16 |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 14 | 1  | 15.03 |      |
| 953 | 11567  |  |    |    |       |      |
|     |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 0  | 6.83  |      |
| 954 | 3522   |  |    |    |       |      |
|     |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 3  | 12 |       | 4.34 |
| 955 | 456528 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
| 956 | 639142 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |      |
| 957 | 446371 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 958 | 554742 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 959 | 448029 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 1  | 10.16 |      |
| 960 | 551380 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 4  | 14 |       | 3.45 |
| 961 | 551527 |  |    |    |       |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52 |
| 962 | 729295 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
| 963 | 349744 |  |    |    |       |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 964 | 648996 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 965 | 447126 |  |    |    |       |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 19 | 5  | 4.02  |      |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|-----|--------|--|----|----|-------|-------|
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 5  | 20 |       | 3.94  |
| 966 | 730866 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57  |
| 967 | 420686 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 8  |       | 7.88  |
| 968 | 451753 |  |    |    |       |       |
|     |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 1  | 12 |       | 11.88 |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 4  | 15 |       | 3.55  |
| 969 | 451380 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 20 | 7  | 3.02  |       |
| 970 | 645530 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 2  | 5.28  |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |       |
| 971 | 554703 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 9  |       | 8.86  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 9  |       | 8.38  |
| 972 | 562835 |  |    |    |       |       |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 9  |       | 8.38  |
| 973 | 732764 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
| 974 | 556216 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
| 975 | 728779 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 976 | 414739 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 14 |       | 6.89  |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 14 |       | 6.52  |
| 977 | 551514 |  |    |    |       |       |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 13 |       | 12.8  |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 1  | 8.46  |       |
| 978 | 550107 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 36 | 14 | 2.72  |       |
| 979 | 726786 |  |    |    |       |       |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57  |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |       |
| 980 | 456747 |  |    |    |       |       |

Table 5

| SEQ | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A  |
|-----|--------|--|----|----|------|------|
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |      |
| 981 | 562550 |  |    |    |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91 |
| 982 | 549722 |  |    |    |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91 |
| 983 | 640525 |  |    |    |      |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51 |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4  |      |
| 984 | 455542 |  |    |    |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68 |
| 985 | 9436   |  |    |    |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 4  | 15 |      | 3.69 |
| 986 | 380284 |  |    |    |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 0  | 9.51 |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 1  | 9.66 |      |
| 987 | 556260 |  |    |    |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91 |
| 988 | 650476 |  |    |    |      |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51 |      |
| 989 | 554500 |  |    |    |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |      |
| 990 | 422375 |  |    |    |      |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 11 |      | 5.12 |
| 991 | 456528 |  |    |    |      |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |      | 6.62 |
| 992 | 644190 |  |    |    |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |      |
| 993 | 554080 |  |    |    |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 9  |      | 8.86 |
| 994 | 546705 |  |    |    |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91 |
| 995 | 558337 |  |    |    |      |      |
|     |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91 |
| 996 | 449269 |  |    |    |      |      |
|     |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 26 | 7  | 3.99 |      |
|     |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 26 | 5  | 5.5  |      |
| 997 | 645799 |  |    |    |      |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
| 998  | 456506 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 17 | 7  | 2.61  |      |
| 999  | 218416 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 1000 | 455820 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89 |
| 1001 | 554703 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 9  |       | 8.86 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 9  |       | 8.38 |
| 1002 | 650204 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 11 | 0  | 11.81 |      |
| 1003 | 456808 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 42 |       | 5.68 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 42 | 1  | 42.65 |      |
| 1004 | 420686 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 8  |       | 7.88 |
| 1005 | 378373 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52 |
| 1006 | 463824 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 1007 | 24939  |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57 |
| 1008 | 556561 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 10 |       | 9.85 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 10 |       | 9.32 |
| 1009 | 380406 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 12 |       | 3.94 |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 16 | 3  | 5.64  |      |
| 1010 | 456764 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 14 | 1  | 15.03 |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 1  | 10.16 |      |
| 1011 | 725703 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |       | 8.51 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |      |
| 1012 | 185465 |  |    |    |       |      |
|      |        |  |    |    |       |      |



Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 2  | 14 |       | 7.17  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 4  | 14 |       | 3.45  |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 25 | 9  | 2.81  |       |
| 1013 | 5830   |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 1014 | 539955 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 24 | 0  | 24.37 |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 11 | 0  | 11.81 |       |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 3  | 47 |       | 15.51 |
| 1015 | 640747 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 1016 | 500630 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 1017 | 448511 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 4  | 26 |       | 6.4   |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3  | 26 |       | 8.07  |
| 1018 | 405073 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 1019 | 641439 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 1020 | 406092 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 12 | 3  | 4.29  |       |
| 1021 | 559806 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1022 | 380284 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 0  | 9.51  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 1  | 9.66  |       |
| 1023 | 560700 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1024 | 552879 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 14 |       | 6.89  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 2  | 5.81  |       |
| 1025 | 640590 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 1  | 9.51  |       |
| 1026 | 641683 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
| 1027 | 648934 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
| 1028 | 557948 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 11 |       | 10.83 |
| 1029 | 377094 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 2  | 5.28  |       |
| 1030 | 449617 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 18 |       | 2.53  |
| 1031 | 978    |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 67 | 20 | 3.6   |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 67 | 28 | 2.53  |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 78 | 23 | 3.31  |       |
| 1032 | 607430 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 1033 | 641837 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 16 | 0  | 17.17 |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 31 | 0  | 31.48 |       |
| 1034 | 449750 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 28 |       | 27.57 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 4  | 28 |       | 6.52  |
| 1035 | 646780 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 1036 | 546642 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0  | 11.17 |       |
| 1037 | 642906 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 1038 | 552879 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 14 |       | 6.89  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 2  | 5.81  |       |
| 1039 | 644205 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
| 1040 | 506744 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 8  |       | 7.88  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
| 1041 | 557797 |  |    |    |       |       |
|      |        |  |    |    |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 16 |       | 5.25 |
| 1042 | 640356 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |      |
| 1043 | 462659 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
| 1044 | 645633 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
| 1045 | 237288 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |      |
| 1046 | 454343 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 0  | 10.16 |      |
| 1047 | 386543 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 23 |       | 7.55 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3  | 23 |       | 7.14 |
| 1048 | 446404 |  |    |    |       |      |
|      |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 23 | 0  | 19.66 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 73 | 0  | 78.36 |      |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 23 | 0  | 26.28 |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 73 | 1  | 77.16 |      |
| 1049 | 456528 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
| 1050 | 456528 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
| 1051 | 452781 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 11 |       | 5.12 |
| 1052 | 551671 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52 |
| 1053 | 644242 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 1054 | 561892 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52 |
| 1055 | 450429 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 1  | 10.16 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 13 | 1  | 13.95 |      |
| 1056 | 533588 |  |    |    |       |      |
|      |        |  |    |    |       |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A   | B  | A/B    | B/A  |
|------|--------|--|-----|----|--------|------|
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0  | 7.51   |      |
| 1057 | 553877 |  |     |    |        |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 8  |        | 7.88 |
| 1058 | 650195 |  |     |    |        |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0  | 6.34   |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44   |      |
| 1059 | 193486 |  |     |    |        |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 7  |        | 6.52 |
| 1060 | 650195 |  |     |    |        |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44   |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0  | 6.34   |      |
| 1061 | 562835 |  |     |    |        |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 9  |        | 8.38 |
| 1062 | 736816 |  |     |    |        |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9   | 0  | 9.14   |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 9  |        | 8.51 |
| 1063 | 403632 |  |     |    |        |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2   | 11 |        | 5.12 |
| 1064 | 390124 |  |     |    |        |      |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 0   | 8  |        | 7    |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 18 |        | 2.79 |
|      |        | 19,20 (Colon Tumor Tissue vs. Colon Metastasis)  | 8   | 0  | 5.98   |      |
| 1065 | 390124 |  |     |    |        |      |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 0   | 8  |        | 7    |
|      |        | 19,20 (Colon Tumor Tissue vs. Colon Metastasis)  | 8   | 0  | 5.98   |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 18 |        | 2.79 |
| 1066 | 422687 |  |     |    |        |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 10 |        | 9.46 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10  | 0  | 10.16  |      |
| 1067 | 394413 |  |     |    |        |      |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 21  | 2  | 12     |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 113 | 3  | 39.81  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 113 | 0  | 121.29 |      |
|      |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 21  | 0  | 17.95  |      |
| 1068 | 549178 |  |     |    |        |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 10 |        | 9.85 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1   | 10 |        | 9.32 |
| 1069 | 453079 |  |     |    |        |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8   | 1  | 8.12   |      |
| 1070 | 463824 |  |     |    |        |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 1071 | 736595 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 1072 | 102655 |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 4  | 33 |       | 8.46  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 14 | 0  | 15.03 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 14 | 0  | 14.8  |       |
| 1073 | 448606 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3  | 20 |       | 6.21  |
| 1074 | 504513 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 1075 | 20036  |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 13 |       | 12.11 |
| 1076 | 530883 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
| 1077 | 447126 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 19 | 5  | 4.02  |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 5  | 20 |       | 3.94  |
| 1078 | 556561 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 10 |       | 9.32  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 10 |       | 9.85  |
| 1079 | 455096 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 10 |       | 4.92  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 10 |       | 9.32  |
| 1080 | 549320 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
| 1081 | 560984 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1082 | 450791 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 18 | 6  | 3.17  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 18 | 3  | 6.44  |       |
| 1083 | 16556  |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 3  | 4.23  |       |
| 1084 | 402707 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 9  |       | 8.38  |
| 1085 | 557903 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |       | 8.51  |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
| 1086 | 451243 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 1087 | 452506 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1088 | 554703 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 9  |       | 8.38  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 9  |       | 8.86  |
| 1089 | 449580 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 16 | 4  | 4.23  |       |
| 1090 | 3316   |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1091 | 97507  |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 9  |       | 8.51  |
| 1092 | 556216 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
| 1093 | 185401 |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 63 |       | 64.57 |
| 1094 | 3758   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 17 | 5  | 3.32  |       |
| 1095 | 95700  |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1  | 21 |       | 21.52 |
| 1096 | 2478   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 17 | 5  | 3.32  |       |
| 1097 | 550267 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 15 | 4  | 4.03  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 15 | 1  | 15.85 |       |
| 1098 | 185652 |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 7  |       | 7.17  |
| 1099 | 55798  |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 9  |       | 9.22  |
| 1100 | 5078   |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 1101 | 9784   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 6  |       | 6.15  |
| 1102 | 2245   |  |    |    |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 13 | 1  | 12.68 |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 12 | 27 |       | 2.44  |
| 1103 | 11606  |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85  |       |
| 1104 | 2245   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 13 | 1  | 12.68 |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 12 | 27 |       | 2.44  |
| 1105 | 551172 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 10 |       | 9.46  |
| 1106 | 729175 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 1107 | 6317   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 1108 | 2478   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 17 | 5  | 3.32  |       |
| 1109 | 4727   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 19 | 0  | 18.54 |       |
| 1110 | 185598 |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 8  |       | 8.2   |
| 1111 | 736349 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 1113 | 189561 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |       | 8.51  |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 1  | 14 |       | 10.02 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 9  |       | 8.38  |
| 1114 | 728131 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 1115 | 560984 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1116 | 549945 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 12 | 2  | 6.44  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 2  | 6.34  |       |
| 1117 | 554785 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 8  |       | 7.88  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 8  |       | 7.45  |
| 1118 | 554785 |  |    |    |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 8  |       | 7.45  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 8  |       | 7.88  |
| 1119 | 551235 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89  |
| 1120 | 2634   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 48 | 0  | 46.83 |       |
| 1121 | 548858 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 11 |       | 10.83 |
| 1122 | 15625  |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 17 | 0  | 18.25 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 17 | 1  | 17.97 |       |
| 1123 | 649259 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
| 1124 | 550267 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 15 | 1  | 15.85 |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 15 | 4  | 4.03  |       |
| 1125 | 7436   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 9  | 1  | 8.78  |       |
| 1126 | 451794 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 15 | 0  | 15.85 |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 15 | 1  | 16.1  |       |
| 1127 | 5744   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 1128 | 3516   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 5  | 17 |       | 3.69  |
| 1129 | 730555 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 1130 | 3085   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 2  | 11 |       | 5.64  |
| 1131 | 638854 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 32 | 11 | 3.07  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 32 | 0  | 34.35 |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0  | 11.17 |       |
| 1132 | 7379   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 1133 | 185562 |  |    |    |       |       |



Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A   | B  | A/B   | B/A   |
|------|--------|--|-----|----|-------|-------|
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0   | 9  |       | 9.22  |
| 1134 | 452491 |  |     |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12  | 3  | 4.23  |       |
| 1135 | 646248 |  |     |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0  | 6.09  |       |
| 1136 | 6056   |  |     |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7   | 0  | 6.83  |       |
| 1137 | 643103 |  |     |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7   | 0  | 7.4   |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0  | 7.51  |       |
| 1138 | 6923   |  |     |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6   | 0  | 5.85  |       |
| 1139 | 6923   |  |     |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6   | 0  | 5.85  |       |
| 1140 | 901    |  |     |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 56  | 5  | 10.93 |       |
| 1141 | 901    |  |     |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 56  | 5  | 10.93 |       |
| 1142 | 367    |  |     |    |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 30  | 99 |       | 2.36  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 13  | 4  | 3.44  |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 105 | 24 | 4.27  |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 19  | 97 |       | 5.53  |
| 1143 | 4043   |  |     |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1   | 9  |       | 9.76  |
| 1144 | 3299   |  |     |    |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 10  | 1  | 13.97 |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 20  | 3  | 6.5   |       |
| 1145 | 11881  |  |     |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6   | 0  | 5.85  |       |
| 1146 | 9113   |  |     |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0   | 7  |       | 7.59  |
| 1147 | 185460 |  |     |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0   | 16 |       | 16.4  |
| 1148 | 185716 |  |     |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0   | 6  |       | 6.15  |
| 1149 | 5753   |  |     |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0   | 10 |       | 10.84 |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
| 1150 | 24939  |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57  |
| 1151 | 649684 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |       |
| 1152 | 642109 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 1153 | 15035  |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 1  | 8.59  |       |
| 1154 | 649354 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 1155 | 4465   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 4  | 14 |       | 3.79  |
| 1156 | 647952 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 1157 | 455601 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |       |
| 1158 | 641901 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 1159 | 446878 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 12 |       | 11.82 |
| 1160 | 7436   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 9  | 1  | 8.78  |       |
| 1161 | 2245   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 12 | 27 |       | 2.44  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 13 | 1  | 12.68 |       |
| 1162 | 3531   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 3  | 17 |       | 6.14  |
| 1163 | 9625   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1  | 12 |       | 12.3  |
| 1164 | 727489 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |       | 8.51  |
| 1165 | 159925 |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1  | 22 |       | 22.55 |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
| 1166 | 645210 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 1  | 10.57 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |      |
| 1167 | 157629 |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 3  | 18 |       | 6.15 |
| 1168 | 8375   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 0  | 6.83  |      |
| 1169 | 4319   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 14 | 0  | 13.66 |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5  |
| 1170 | 4045   |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 11 |       | 5.96 |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 1  | 9.76  |      |
| 1171 | 185642 |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 7  |       | 7.17 |
| 1172 | 7436   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 9  | 1  | 8.78  |      |
| 1173 | 3531   |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 3  | 17 |       | 6.14 |
| 1174 | 644776 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |      |
| 1175 | 8354   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 0  | 6.83  |      |
| 1176 | 2099   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 27 | 7  | 3.76  |      |
| 1177 | 449956 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 1  | 10.16 |      |
| 1178 | 649106 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
| 1179 | 452414 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 17 | 0  | 17.97 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 17 | 0  | 18.25 |      |
| 1180 | 732712 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
| 1181 | 185562 |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 9  |       | 9.22 |
| 1182 | 3516   |  |    |    |       |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 5  | 17 |       | 3.69 |
| 1183 | 185562 |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 9  |       | 9.22 |
| 1184 | 185460 |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 16 |       | 16.4 |
| 1185 | 10947  |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 8  | 0  | 7.81  |      |
| 1186 | 452856 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 1187 | 558767 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 1  | 8.46  |      |
| 1188 | 15035  |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 1  | 8.59  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |      |
| 1189 | 556421 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 1  | 12.68 |      |
| 1190 | 7082   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 0  | 9.76  |      |
| 1191 | 452523 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 2  | 5.37  |      |
| 1192 | 3242   |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 17 |       | 9.22 |
| 1193 | 6660   |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 7  | 0  | 6.46  |      |
| 1194 | 547    |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 35 | 67 |       | 2.08 |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 90 | 30 | 2.93  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 10 |       | 9.46 |
| 1195 | 121213 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |      |
| 1196 | 4378   |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 11 |       | 5.42 |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1  | 8  |       | 8.2  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 2  | 5.81  |      |
| 1197 | 185554 |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 9  |       | 9.22 |
| 1198 | 185482 |  |    |    |       |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 13 |       | 13.32 |
| 1200 | 66017  |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 8  |       | 8.2   |
| 1201 | 403111 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 1202 | 3224   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 17 | 2  | 7.84  |       |
| 1203 | 966    |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 22 | 47 |       | 2.32  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 50 | 19 | 2.57  |       |
| 1204 | 3639   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 12 | 3  | 3.9   |       |
| 1205 | 5388   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 5  | 21 |       | 4.3   |
| 1206 | 3299   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 10 | 1  | 13.97 |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 20 | 3  | 6.5   |       |
| 1207 | 23760  |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 4  | 34 |       | 8.71  |
| 1208 | 729384 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
| 1209 | 46559  |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 2  | 30 |       | 15.37 |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 2  | 5.28  |       |
| 1210 | 449750 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 4  | 28 |       | 6.52  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 28 |       | 27.57 |
| 1211 | 735936 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |       | 8.51  |
| 1212 | 607430 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 1213 | 452856 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 1214 | 557903 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |       | 8.51  |
| 1215 | 453112 |  |    |    |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 13 |       | 4.27 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3  | 13 |       | 4.04 |
| 1216 | 645900 |  |    |    |       |      |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 7  | 0  | 7.07  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66  |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |      |
| 1217 | 415114 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 0  | 10.57 |      |
| 1218 | 418763 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66  |      |
| 1219 | 2245   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 13 | 1  | 12.68 |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 12 | 27 |       | 2.44 |
| 1220 | 403668 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 13 | 3  | 4.4   |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 2  | 13 |       | 6.15 |
| 1221 | 15427  |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52 |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57 |
| 1222 | 555714 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 23 | 11 | 2.21  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 23 | 7  | 3.53  |      |
| 1223 | 555830 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 16 | 2  | 8.59  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 16 | 2  | 8.46  |      |
| 1224 | 4620   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 0  | 6.83  |      |
| 1225 | 171511 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
| 1226 | 451401 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 1  | 9.66  |      |
| 1227 | 447501 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 15 | 3  | 5.37  |      |
| 1228 | 460445 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 1229 | 375814 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 1  | 8.59  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A   |
|------|--------|--|----|----|------|-------|
| 1230 | 449356 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 21 |      | 2.79  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 4  | 21 |      | 5.17  |
| 1231 | 468736 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91  |
| 1232 | 548858 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 11 |      | 10.83 |
| 1233 | 3693   |  |    |    |      |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 6  |      | 6.15  |
| 1234 | 642973 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11 |       |
| 1235 | 561180 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 2  | 5.81 |       |
| 1236 | 453708 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 19 |      | 18.71 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 19 |      | 17.7  |
| 1237 | 645305 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51 |       |
| 1238 | 463487 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 1  | 8.59 |       |
| 1239 | 11131  |  |    |    |      |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |      | 6.5   |
| 1240 | 561807 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |      | 7.88  |
| 1241 | 452800 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3  | 13 |      | 4.04  |
| 1242 | 372960 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 18 |      | 2.79  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 33 |      | 5.2   |
| 1243 | 449317 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 5  | 20 |      | 3.73  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 20 |      | 2.46  |
| 1244 | 730759 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |      | 6.62  |
| 1245 | 9113   |  |    |    |      |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 7  |      | 7.59  |
| 1246 | 630259 |  |    |    |      |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A   |
|------|--------|--|----|----|------|-------|
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4  |       |
| 1247 | 3516   |  |    |    |      |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 5  | 17 |      | 3.69  |
| 1248 | 447494 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 26 | 8  | 3.44 |       |
| 1249 | 554500 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |       |
| 1250 | 639662 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51 |       |
| 1251 | 421    |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |      | 6.52  |
| 1252 | 736014 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
| 1253 | 643061 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 1  | 8.46 |       |
| 1254 | 9113   |  |    |    |      |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 7  |      | 7.59  |
| 1255 | 650856 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
| 1256 | 476223 |  |    |    |      |       |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 2  | 19 |      | 9.4   |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51 |       |
| 1257 | 737088 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
| 1258 | 449512 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 4  | 14 |      | 3.26  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 14 |      | 13.79 |
| 1259 | 449457 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |      | 6.52  |
| 1260 | 521901 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91  |
| 1261 | 175799 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 14 | 3  | 4.93 |       |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 1  | 9  |      | 8.91  |



Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
| 1262 | 550108 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 19 |       | 3    |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 37 |       | 5.75 |
| 1263 | 203605 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 17 | 7  | 2.57  |      |
| 1264 | 450429 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 13 | 1  | 13.95 |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 1  | 10.16 |      |
| 1265 | 2478   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 17 | 5  | 3.32  |      |
| 1266 | 644099 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 1267 | 552614 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89 |
| 1268 | 452523 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 2  | 5.37  |      |
| 1269 | 446789 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 16 | 5  | 3.38  |      |
| 1270 | 515631 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
| 1271 | 452523 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 2  | 5.37  |      |
| 1272 | 640116 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 19 | 0  | 20.39 |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 19 | 4  | 5.02  |      |
| 1273 | 9113   |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 7  |       | 7.59 |
| 1274 | 562221 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |      |
| 1275 | 455972 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
| 1276 | 449137 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 3  | 18 |       | 5.68 |
| 1277 | 5078   |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
| 1278 | 5078   |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A   | B  | A/B    | B/A  |
|------|--------|--|-----|----|--------|------|
| 1279 | 4016   |  |     |    |        |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0   | 6  |        | 6.15 |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 5   | 14 |        | 3.04 |
| 1280 | 403111 |  |     |    |        |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0  | 6.34   |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44   |      |
| 1281 | 562292 |  |     |    |        |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6  |        | 5.91 |
| 1282 | 403111 |  |     |    |        |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44   |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0  | 6.34   |      |
| 1283 | 403111 |  |     |    |        |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0  | 6.34   |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44   |      |
| 1284 | 500959 |  |     |    |        |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8   | 0  | 8.59   |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8   | 0  | 8.46   |      |
| 1285 | 763    |  |     |    |        |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 29  | 77 |        | 2.88 |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 42  | 10 | 4.1    |      |
| 1286 | 763    |  |     |    |        |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 42  | 10 | 4.1    |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 29  | 77 |        | 2.88 |
| 1287 | 500959 |  |     |    |        |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8   | 0  | 8.59   |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8   | 0  | 8.46   |      |
| 1288 | 452071 |  |     |    |        |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 109 | 0  | 117    |      |
|      |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 14  | 0  | 11.97  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 109 | 1  | 115.21 |      |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 14  | 0  | 16     |      |
| 1289 | 468672 |  |     |    |        |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0  | 6.34   |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 8  |        | 7.88 |
| 1290 | 455492 |  |     |    |        |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8   | 1  | 8.46   |      |
| 1291 | 639667 |  |     |    |        |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9   | 0  | 9.14   |      |
| 1292 | 549829 |  |     |    |        |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6  |        | 5.91 |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B | A/B  | B/A  |
|------|--------|--|----|---|------|------|
| 1293 | 553158 |  |    |   |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8 |      | 7.88 |
| 1294 | 561485 |  |    |   |      |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7 |      | 6.52 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7 |      | 6.89 |
| 1295 | 639352 |  |    |   |      |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0 | 7.51 |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0 | 7.4  |      |
| 1296 | 451401 |  |    |   |      |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 1 | 9.66 |      |
| 1297 | 643103 |  |    |   |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0 | 7.4  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0 | 7.51 |      |
| 1298 | 468736 |  |    |   |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6 |      | 5.91 |
| 1299 | 218416 |  |    |   |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6 |      | 5.91 |
| 1300 | 447501 |  |    |   |      |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 15 | 3 | 5.37 |      |
| 1301 | 558371 |  |    |   |      |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 2 | 5.37 |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 2 | 5.28 |      |
| 1302 | 561794 |  |    |   |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6 |      | 5.68 |
| 1303 | 645065 |  |    |   |      |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0 | 6.44 |      |
| 1304 | 451269 |  |    |   |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 13 | 3 | 4.58 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 13 | 4 | 3.49 |      |
| 1305 | 401553 |  |    |   |      |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0 | 8.59 |      |
| 1306 | 555276 |  |    |   |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6 |      | 5.91 |
| 1307 | 551617 |  |    |   |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 0 | 9.51 |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7 |      | 6.89 |
| 1308 | 463480 |  |    |   |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6 |      | 5.91 |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
| 1309 | 549178 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 10 |       | 9.32  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 10 |       | 9.85  |
| 1310 | 374450 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
| 1311 | 562835 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 9  |       | 8.38  |
| 1312 | 730555 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 1313 | 732978 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
| 1314 | 1609   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 3  | 58 |       | 20 96 |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 2  | 4.88  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 15 | 3  | 5.37  |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 14 | 3  | 4.74  |       |
| 1315 | 18591  |  |    |    |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 8  | 0  | 11.18 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 30 | 8  | 3.96  |       |
| 1316 | 553158 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88  |
| 1317 | 470602 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 9  |       | 8.86  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 1  | 12.68 |       |
| 1318 | 639662 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 1319 | 644721 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 1320 | 453202 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 11 |       | 10.83 |
| 1321 | 554655 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 1322 | 641988 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 1323 | 453112 |  |    |    |       |       |

**Table 5**

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 13 |       | 4.27 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3  | 13 |       | 4.04 |
| 1324 | 550694 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 21 | 1  | 22.2  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 21 | 7  | 3.22  |      |
| 1325 | 649106 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
| 1326 | 638973 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 12 | 0  | 12.19 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
| 1327 | 549911 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 1328 | 648774 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 1329 | 549911 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 1330 | 639662 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |      |
| 1331 | 560455 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52 |
| 1332 | 735805 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
| 1333 | 732712 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
| 1334 | 446663 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 14 | 32 |       | 2.13 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 32 |       | 5.25 |
|      |        | 19,20 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 8  |       | 10.7 |
|      |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 8  |       | 9.36 |
| 1335 | 226324 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 1336 | 453016 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
| 1337 | 550998 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |

**Table 5**

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
| 1338 | 452414 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 17 | 0  | 17.97 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 17 | 0  | 18.25 |      |
| 1339 | 129535 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 41 | 1  | 44.01 |      |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 2  | 22 |       | 7.87 |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 41 | 5  | 8.67  |      |
| 1340 | 447089 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88 |
| 1341 | 447850 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 1342 | 556216 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89 |
| 1343 | 452523 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 2  | 5.37  |      |
| 1344 | 44424  |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 41 | 90 |       | 2.16 |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 4  | 40 |       | 7.16 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 25 | 90 |       | 3.35 |
| 1345 | 648872 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 1346 | 451636 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88 |
| 1347 | 5078   |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
| 1348 | 403111 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 1349 | 648959 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
| 1350 | 380291 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 1351 | 380291 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 1352 | 230995 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A   |
|------|--------|--|----|----|------|-------|
| 1353 | 562221 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs Colon Tumor Tissue)       | 8  | 0  | 8.46 |       |
| 1354 | 450959 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 9  |      | 8.51  |
| 1355 | 452833 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |      | 6.52  |
| 1356 | 550195 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 11 |      | 10.83 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 11 |      | 5.12  |
| 1357 | 448927 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 12 |      | 5.59  |
| 1358 | 551514 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 13 |      | 12.8  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 1  | 8.46 |       |
| 1359 | 549829 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91  |
| 1360 | 551514 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 1  | 8.46 |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 13 |      | 12.8  |
| 1361 | 561485 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |      | 6.89  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |      | 6.52  |
| 1362 | 453846 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 11 |      | 10.25 |
| 1363 | 69863  |  |    |    |      |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 3  | 23 |      | 5.49  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 3  | 21 |      | 7.17  |
| 1364 | 727181 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
| 1365 | 454050 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 1  | 8.59 |       |
| 1366 | 725994 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
| 1367 | 1495   |  |    |    |      |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 31 | 12 | 2.52 |       |
| 1368 | 5665   |  |    |    |      |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 13 | 0  | 12.68 |       |
| 1369 | 5665   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 13 | 0  | 12.68 |       |
| 1370 | 646146 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
| 1371 | 8371   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 1372 | 73812  |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 12 |       | 12.3  |
| 1373 | 4242   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 17 | 0  | 16.59 |       |
| 1374 | 5482   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 8  |       | 8.67  |
| 1375 | 5474   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 8  |       | 8.67  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 5  | 17 |       | 3.48  |
| 1376 | 5448   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 10 |       | 10.84 |
| 1377 | 7607   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 13 | 3  | 4.65  |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 7  |       | 7.59  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 13 | 4  | 3.44  |       |
| 1378 | 555928 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 1379 | 4046   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 4  | 14 |       | 3.79  |
| 1380 | 554080 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 9  |       | 8.86  |
| 1381 | 451092 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 9  |       | 8.86  |
| 1382 | 551380 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 4  | 14 |       | 3.45  |
| 1383 | 546642 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0  | 11.17 |       |
| 1384 | 1764   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 27 | 4  | 6.59  |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 25 | 8  | 2.88  |       |



Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
| 1385 | 650773 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 1386 | 644205 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |      |
| 1387 | 185718 |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 6  |       | 6.15 |
| 1388 | 5538   |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 8  |       | 8.67 |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85  |      |
| 1389 | 7546   |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 8  | 0  | 7.38  |      |
| 1390 | 727789 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
| 1391 | 3837   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 9  | 1  | 8.78  |      |
| 1392 | 380477 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
| 1393 | 3299   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 20 | 3  | 6.5   |      |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 10 | 1  | 13.97 |      |
| 1394 | 448853 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 10 |       | 9.46 |
| 1395 | 736701 |  |    |    |       |      |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 10 | 0  | 10.1  |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
| 1396 | 735296 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
| 1397 | 13666  |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1  | 9  |       | 9.22 |
| 1398 | 732712 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
| 1399 | 3765   |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 19 | 6  | 2.92  |      |
| 1400 | 185596 |  |    |    |       |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 8  |       | 8.2   |
| 1401 | 1943   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 16 | 4  | 3.9   |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 19 |       | 3     |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 9  | 29 |       | 3.49  |
| 1402 | 448193 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 2  | 5.08  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 10 |       | 9.46  |
| 1403 | 1793   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 13 | 27 |       | 2.25  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 35 | 13 | 2.63  |       |
| 1404 | 2475   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 5  | 35 |       | 7.17  |
| 1405 | 730866 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57  |
| 1406 | 730389 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |       | 8.51  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |       |
| 1407 | 641884 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 1408 | 463487 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 1  | 8.59  |       |
| 1409 | 5156   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 8  |       | 8.67  |
| 1410 | 728408 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 12 |       | 11.35 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 12 | 0  | 12.19 |       |
| 1411 | 73812  |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 12 |       | 12.3  |
| 1412 | 1662   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 7  | 34 |       | 5.27  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 31 | 5  | 6.05  |       |
| 1413 | 736556 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57  |
| 1414 | 5240   |  |    |    |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 18 | 10 | 2.52  |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 12 | 2  | 5.85  |      |
| 1415 | 6184   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 8  |       | 8.67 |
| 1416 | 446404 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 23 | 0  | 26.28 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 73 | 0  | 78.36 |      |
|      |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 23 | 0  | 19.66 |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 73 | 1  | 77.16 |      |
| 1417 | 646825 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |      |
| 1418 | 734929 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
| 1419 | 648851 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 1420 | 640135 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |      |
| 1421 | 7443   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 9  | 0  | 8.78  |      |
| 1422 | 454050 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 1  | 8.59  |      |
| 1423 | 3765   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 19 | 6  | 2.92  |      |
| 1424 | 648320 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 1425 | 451269 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 13 | 4  | 3.49  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 13 | 3  | 4.58  |      |
| 1426 | 535208 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 1427 | 728115 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
| 1428 | 5240   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 12 | 2  | 5.85  |      |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 18 | 10 | 2.52  |      |
| 1429 | 909    |  |    |    |       |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 34 | 4  | 11.88 |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 54 | 18 | 2.93  |       |
| 1430 | 447697 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 2  | 11 |       | 5.2   |
| 1431 | 447737 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 19 | 6  | 3.35  |       |
| 1432 | 651100 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 1433 | 735477 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 1434 | 3774   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 12 |       | 13.01 |
| 1435 | 646146 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
| 1436 | 643931 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 1437 | 463487 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 1  | 8.59  |       |
| 1438 | 650097 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 1439 | 554469 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 24 | 3  | 8.59  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 24 | 8  | 3.17  |       |
| 1440 | 476223 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 2  | 19 |       | 9.4   |
| 1441 | 8738   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85  |       |
| 1442 | 403978 |  |    |    |       |       |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 23 | 50 |       | 2.15  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 19 |       | 2.57  |
| 1443 | 185539 |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 10 |       | 10.25 |
| 1444 | 451811 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 2  | 5.37  |       |
| 1445 | 140731 |  |    |    |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 1446 | 734582 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 1447 | 463487 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 1  | 8.59  |       |
| 1448 | 558719 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 18 | 6  | 3.17  |       |
| 1449 | 21669  |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89  |
| 1450 | 470462 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 1451 | 3316   |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1452 | 553728 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 11 |       | 10.83 |
| 1453 | 736014 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 1454 | 237288 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
| 1455 | 11141  |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 1456 | 556421 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 1  | 12.68 |       |
| 1457 | 549435 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 14 | 2  | 7.4   |       |
| 1458 | 448927 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 12 |       | 5.59  |
| 1459 | 379105 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57  |
| 1460 | 552614 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89  |
| 1461 | 470602 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 1  | 12.68 |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 9  |       | 8.86  |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
| 1462 | 557039 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 16 |       | 7.88  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 2  | 5.81  |       |
| 1463 | 549864 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1464 | 449836 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 1  | 8.59  |       |
| 1465 | 554812 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 8  |       | 7.45  |
| 1466 | 3316   |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1467 | 649852 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 1468 | 453592 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 19 | 6  | 3.35  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 10 |       | 9.32  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 10 |       | 4.92  |
| 1470 | 446199 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88  |
| 1471 | 558427 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 4  | 15 |       | 3.55  |
| 1472 | 450255 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1473 | 452026 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 35 | 14 | 2.64  |       |
| 1474 | 374971 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88  |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 0  | 16 |       | 11.45 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 8  |       | 7.45  |
| 1475 | 446404 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 73 | 0  | 78.36 |       |
|      |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 23 | 0  | 19.66 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 73 | 1  | 77.16 |       |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 23 | 0  | 26.28 |       |
| 1476 | 549591 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 24 |       | 3.38  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 24 |       | 11.18 |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
| 1477 | 640135 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
| 1478 | 646248 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
| 1479 | 639705 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 0  | 10.57 |      |
| 1480 | 483084 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
| 1481 | 464029 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 9  |       | 8.86 |
| 1482 | 428005 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 8  |       | 7.45 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 8  |       | 7.88 |
| 1483 | 91178  |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52 |
| 1484 | 550571 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 1485 | 735028 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
| 1486 | 559409 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 1487 | 551172 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 10 |       | 9.46 |
| 1488 | 648872 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 1489 | 446404 |  |    |    |       |      |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 23 | 0  | 26.28 |      |
|      |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 23 | 0  | 19.66 |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 73 | 1  | 77.16 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 73 | 0  | 78.36 |      |
| 1490 | 734063 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
| 1491 | 467991 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
| 1492 | 454050 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 1  | 8.59  |       |
| 1493 | 734646 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 14 |       | 13.25 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 14 | 0  | 14.22 |       |
| 1494 | 450192 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89  |
| 1495 | 403978 |  |    |    |       |       |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 23 | 50 |       | 2.15  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 19 |       | 2.57  |
| 1496 | 734209 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |       | 8.51  |
| 1497 | 14805  |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 10 |       | 4.92  |
| 1498 | 230995 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
| 1499 | 120049 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 2  | 5.37  |       |
| 1500 | 642142 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0  | 11.17 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 2  | 11 |       | 5.2   |
| 1501 | 403978 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 19 |       | 2.57  |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 23 | 50 |       | 2.15  |
| 1502 | 386543 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3  | 23 |       | 7.14  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 23 |       | 7.55  |
| 1503 | 379105 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57  |
| 1504 | 450255 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1505 | 730143 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 1506 | 734209 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |       | 8.51  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |       |
| 1507 | 401553 |  |    |    |       |       |



Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B   | A/B   | B/A   |
|------|--------|--|----|-----|-------|-------|
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0   | 8.59  |       |
| 1508 | 72979  |  |    |     |       |       |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 1  | 36  |       | 31.5  |
|      |        | 19,20 (Colon Tumor Tissue vs. Colon Metastasis)  | 36 | 4   | 6.73  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 46 | 311 |       | 6.3   |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 18 | 0   | 25.15 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 46 | 193 |       | 3.97  |
| 1509 | 726307 |  |    |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0   | 6.09  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6   |       | 5.68  |
| 1510 | 230995 |  |    |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7   |       | 6.62  |
| 1511 | 3524   |  |    |     |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 21 | 6   | 3.23  |       |
| 1512 | 8112   |  |    |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 8  | 0   | 7.81  |       |
| 1513 | 5240   |  |    |     |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 18 | 10  | 2.52  |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 12 | 2   | 5.85  |       |
| 1514 | 447326 |  |    |     |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0   | 6.44  |       |
| 1515 | 2676   |  |    |     |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 17  |       | 9.22  |
| 1516 | 736701 |  |    |     |       |       |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 10 | 0   | 10.1  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6   |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0   | 6.09  |       |
| 1517 | 736701 |  |    |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6   |       | 5.68  |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 10 | 0   | 10.1  |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0   | 6.09  |       |
| 1518 | 8371   |  |    |     |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6   |       | 6.5   |
| 1520 | 185542 |  |    |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 10  |       | 10.25 |
| 1521 | 448046 |  |    |     |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 12  |       | 11.18 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 12  |       | 3.94  |
| 1522 | 185422 |  |    |     |       |       |
|      |        |  |    |     |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A   | B   | A/B   | B/A   |
|------|--------|--|-----|-----|-------|-------|
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0   | 32  |       | 32.8  |
| 1523 | 650448 |  |     |     |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0   | 7.51  |       |
| 1524 | 5753   |  |     |     |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0   | 10  |       | 10.84 |
| 1526 | 1644   |  |     |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 27  | 57  |       | 2.16  |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 11  | 33  |       | 3.25  |
| 1527 | 4453   |  |     |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10  | 2   | 4.88  |       |
| 1528 | 454152 |  |     |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11  | 3   | 3.88  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 11  | 1   | 11.81 |       |
| 1529 | 9913   |  |     |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7   | 0   | 6.83  |       |
| 1530 | 1350   |  |     |     |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 3   | 44  |       | 15.9  |
| 1531 | 188    |  |     |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 129 | 309 |       | 2.46  |
|      |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 71  | 166 |       | 2.38  |
| 1532 | 4471   |  |     |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10  | 1   | 9.76  |       |
| 1533 | 2622   |  |     |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7   | 31  |       | 4.54  |
| 1534 | 185465 |  |     |     |       |       |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 25  | 9   | 2.81  |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 4   | 14  |       | 3.45  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 2   | 14  |       | 7.17  |
| 1535 | 19205  |  |     |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0   | 6   |       | 6.15  |
| 1536 | 185635 |  |     |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0   | 7   |       | 7.17  |
| 1537 | 5289   |  |     |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 19  | 2   | 9.27  |       |
| 1538 | 779    |  |     |     |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 27  | 54  |       | 2.17  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 60  | 22  | 2.66  |       |
| 1539 | 779    |  |     |     |       |       |
|      |        |  |     |     |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 27 | 54 |       | 2.17  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 60 | 22 | 2.66  |       |
| 1540 | 5289   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 19 | 2  | 9.27  |       |
| 1541 | 456808 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 42 |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 42 | 1  | 42.65 |       |
| 1543 | 546642 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0  | 11.17 |       |
| 1544 | 649732 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 1545 | 5240   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 12 | 2  | 5.85  |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 18 | 10 | 2.52  |       |
| 1546 | 448046 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 12 |       | 11.18 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 12 |       | 3.94  |
| 1547 | 650476 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 1548 | 379341 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 2  | 21 |       | 7.51  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3  | 14 |       | 4.35  |
| 1549 | 401849 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 15 |       | 14.77 |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
| 1550 | 11452  |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 1551 | 185417 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 8  | 56 |       | 5.01  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 4  | 32 |       | 8.2   |
| 1552 | 4471   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 1  | 9.76  |       |
| 1553 | 2557   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 23 | 8  | 2.65  |       |
| 1554 | 3656   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 12 |       | 6.5   |
| 1555 | 2327   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 8  | 19 |       | 2.43  |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 10 | 2  | 6.99  |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
| 1556 | 449026 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 2  | 5.37  |       |
| 1557 | 730227 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 1558 | 650864 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
| 1559 | 530774 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 5  | 16 |       | 2.98  |
| 1560 | 395341 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
| 1561 | 557906 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 3  | 4.23  |       |
| 1562 | 452531 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 2  | 11 |       | 5.2   |
| 1563 | 559057 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
| 1564 | 448046 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 12 |       | 11.18 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 12 |       | 3.94  |
| 1565 | 553547 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1566 | 4636   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 3  | 15 |       | 5.12  |
| 1567 | 455601 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |       |
| 1568 | 172013 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 1569 | 552597 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
| 1570 | 446531 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1571 | 639352 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
| 1572 | 642604 |  |    |    |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 13 | 0  | 13.2  |       |
| 1573 | 558534 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89  |
| 1574 | 556421 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 1  | 12.68 |       |
| 1575 | 735477 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 1576 | 640703 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 0  | 10.16 |       |
| 1577 | 643878 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
| 1578 | 557797 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 16 |       | 5.25  |
| 1579 | 557200 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 10 |       | 9.85  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 10 |       | 9.32  |
| 1580 | 729531 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 1581 | 734554 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 1582 | 418008 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
| 1583 | 558614 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 9  |       | 8.86  |
| 1584 | 452245 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 12 |       | 11.18 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 12 |       | 11.82 |
| 1585 | 449891 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 1  | 8.46  |       |
| 1587 | 6162   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 13 | 0  | 12.68 |       |
| 1588 | 6162   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 13 | 0  | 12.68 |       |
| 1589 | 4809   |  |    |    |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
|      |        |  |    |    |       |      |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 3  | 27 |       | 6.44 |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 15 | 1  | 13.84 |      |
| 1590 | 3926   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 9  |       | 9.22 |
| 1591 | 185693 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 6  |       | 6.15 |
| 1592 | 641683 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |      |
| 1593 | 11351  |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5  |
| 1594 | 650864 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |      |
| 1595 | 460445 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 1596 | 447669 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 4  | 16 |       | 3.78 |
| 1597 | 227936 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57 |
| 1598 | 639459 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 11 | 0  | 11.81 |      |
| 1599 | 650195 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 1600 | 734793 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |       | 8.51 |
| 1601 | 540787 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |      |
| 1602 | 400654 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88 |
| 1603 | 731467 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
| 1604 | 4045   |  |    |    |       |      |
|      |        |  |    |    |       |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 1  | 9.76  |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 11 |       | 5.96  |
| 1605 | 447669 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 4  | 16 |       | 3.78  |
| 1606 | 11351  |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 1607 | 648931 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66  |       |
| 1608 | 726786 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57  |
| 1609 | 4508   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 12 |       | 13.01 |
| 1610 | 415058 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1611 | 450633 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 34 | 13 | 2.76  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 34 | 7  | 5.21  |       |
| 1612 | 736955 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 13 |       | 12.3  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 13 | 0  | 13.2  |       |
| 1613 | 729851 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
| 1614 | 2512   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 0  | 6.83  |       |
| 1615 | 452704 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 1  | 10.57 |       |
| 1616 | 4589   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 14 | 2  | 6.46  |       |
| 1617 | 4727   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 19 | 0  | 18.54 |       |
| 1618 | 454380 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 3  | 14 |       | 4.42  |
| 1619 | 553912 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
| 1620 | 450004 |  |    |    |       |       |
|      |        |  |    |    |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B  | A  | B  | A/B   | B/A   |
|------|--------|---|----|----|-------|-------|
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 0  | 13 |       | 12.3  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 13 | 2  | 6.6   |       |
| 1621 | 448193 |   |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 10 | 2  | 5.08  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 1  | 10 |       | 9.46  |
| 1622 | 549591 |   |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)  | 2  | 24 |       | 11.18 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 7  | 24 |       | 3.38  |
| 1623 | 448511 |   |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)  | 3  | 26 |       | 8.07  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 4  | 26 |       | 6.4   |
| 1624 | 335    |   |    |    |       |       |
|      |        | 13,14 (bFGF Treated HMVEC vs. VEGF-Treated HMVEC)                                       | 3  | 15 |       | 4.92  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 12 | 38 |       | 3     |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis)  | 12 | 41 |       | 3.18  |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)   | 0  | 29 |       | 25.38 |
|      |        | 19,20 (Colon Tumor Tissue vs. Colon Metastasis)   | 29 | 4  | 5.42  |       |
|      |        | 12,14 (Untreated HMVEC vs. VEGF-Treated HMVEC) (Untreated HMVEC vs. VEGF-Treated HMVEC) | 1  | 15 |       | 14.69 |
| 1625 | 561382 |   |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)   | 12 | 2  | 6.34  |       |
| 1626 | 3447   |   |    |    |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)  | 0  | 13 |       | 9.3   |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 2  | 16 |       | 8.67  |
| 1627 | 639896 |   |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 8  | 0  | 8.12  |       |
| 1628 | 1353   |   |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 39 | 13 | 2.77  |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)  | 37 | 17 | 2.12  |       |
| 1629 | 3031   |   |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 7  | 18 |       | 2.79  |
| 1630 | 557928 |   |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)   | 0  | 6  |       | 5.91  |
| 1631 | 4727   |   |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)  | 19 | 0  | 18.54 |       |
| 1632 | 4046   |   |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)  | 4  | 14 |       | 3.79  |
| 1633 | 10882  |   |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)  | 6  | 20 |       | 3.42  |
| 1634 | 646283 |   |    |    |       |       |



Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 0  | 9.51  |      |
| 1635 | 646283 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 0  | 9.51  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66  |      |
| 1636 | 139516 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 7  |       | 7.17 |
| 1637 | 6184   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 8  |       | 8.67 |
| 1638 | 6184   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 8  |       | 8.67 |
| 1639 | 454653 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 5  | 17 |       | 3.35 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3  | 17 |       | 5.28 |
| 1640 | 3309   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 9  | 0  | 8.78  |      |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 10 | 38 |       | 2.72 |
| 1641 | 1037   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 4  | 22 |       | 5.64 |
| 1642 | 450665 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 1643 | 726307 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
| 1644 | 447669 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 4  | 16 |       | 3.78 |
| 1645 | 639651 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 1646 | 736860 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
| 1647 | 553705 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 0  | 12.68 |      |
| 1648 | 451375 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 2  | 11 |       | 5.2  |
| 1649 | 204862 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 1650 | 530883 |  |    |    |       |      |
|      |        |  |    |    |       |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B   | A/B   | B/A  |
|------|--------|--|----|-----|-------|------|
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7   |       | 6.62 |
| 1651 | 447539 |  |    |     |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 1   | 8.46  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0   | 8.59  |      |
| 1652 | 455096 |  |    |     |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 10  |       | 4.92 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 10  |       | 9.32 |
| 1654 | 449142 |  |    |     |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 1   | 9.14  |      |
| 1655 | 557401 |  |    |     |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 2   | 5.37  |      |
| 1656 | 418763 |  |    |     |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0   | 9.66  |      |
| 1657 | 17649  |  |    |     |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0   | 5.85  |      |
| 1658 | 2078   |  |    |     |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 11 | 2   | 5.37  |      |
| 1659 | 640370 |  |    |     |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0   | 7.11  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0   | 6.44  |      |
| 1660 | 449269 |  |    |     |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 26 | 7   | 3.99  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 26 | 5   | 5.5   |      |
| 1661 | 639029 |  |    |     |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0   | 6.44  |      |
| 1662 | 448677 |  |    |     |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 1   | 11.63 |      |
| 1663 | 349    |  |    |     |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 69 | 138 |       | 2.17 |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 77 | 1   | 75.13 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7   |       | 6.52 |
| 1664 | 447494 |  |    |     |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 26 | 8   | 3.44  |      |
| 1665 | 551433 |  |    |     |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 8   |       | 7.88 |
| 1666 | 414739 |  |    |     |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 14  |       | 6.52 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 14  |       | 6.89 |
| 1667 | 640525 |  |    |     |       |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
| 1668 | 640525 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
| 1669 | 233108 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 11 | 0  | 11.81 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 0  | 11.63 |       |
| 1670 | 643594 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
| 1671 | 1642   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 28 | 5  | 5.46  |       |
| 1672 | 643804 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 1673 | 449701 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 17 |       | 16.08 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 17 | 1  | 17.26 |       |
| 1674 | 185695 |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 6  |       | 6.15  |
| 1675 | 555830 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 16 | 2  | 8.46  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 16 | 2  | 8.59  |       |
| 1676 | 227936 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57  |
| 1677 | 1609   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 3  | 58 |       | 20.96 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 15 | 3  | 5.37  |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 14 | 3  | 4.74  |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 2  | 4.88  |       |
| 1678 | 643938 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
| 1679 | 3656   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 12 |       | 6.5   |
| 1680 | 16576  |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 8  |       | 8.2   |
| 1681 | 9784   |  |    |    |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 6  |       | 6.15 |
| 1682 | 2557   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 23 | 8  | 2.65  |      |
| 1683 | 4620   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 0  | 6.83  |      |
| 1684 | 43642  |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 1685 | 555103 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 0  | 6  |       | 5.94 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52 |
| 1686 | 643341 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |      |
| 1687 | 185531 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1  | 9  |       | 9.22 |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 0  | 13 |       | 9.3  |
| 1688 | 4045   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 11 |       | 5.96 |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 1  | 9.76  |      |
| 1689 | 400258 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
| 1690 | 96618  |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 4  | 13 |       | 3.33 |
| 1691 | 646060 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 13 | 0  | 13.95 |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 13 | 3  | 4.58  |      |
| 1692 | 5665   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 13 | 0  | 12.68 |      |
| 1693 | 149265 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1  | 16 |       | 16.4 |
| 1694 | 727314 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
| 1695 | 736349 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
| 1696 | 648931 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66  |      |
| 1697 | 553881 |  |    |    |       |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A   | B    | A/B    | B/A   |
|------|--------|--|-----|------|--------|-------|
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 15  | 4    | 3.96   |       |
| 1698 | 7444   |  |     |      |        |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 9   | 0    | 8.78   |       |
| 1699 | 150    |  |     |      |        |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 51  | 24   | 2.07   |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 5   | 0    | 6.99   |       |
| 1700 | 2889   |  |     |      |        |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 8   | 19   |        | 2.57  |
| 1701 | 730670 |  |     |      |        |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0    | 6.09   |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6    |        | 5.68  |
| 1702 | 560984 |  |     |      |        |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6    |        | 5.91  |
| 1703 | 453708 |  |     |      |        |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 19   |        | 18.71 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1   | 19   |        | 17.7  |
| 1704 | 48977  |  |     |      |        |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 8    |        | 7.45  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 8    |        | 7.88  |
| 1707 | 97507  |  |     |      |        |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1   | 9    |        | 8.51  |
| 1708 | 735966 |  |     |      |        |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6    |        | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0    | 6.09   |       |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 7   | 0    | 7.07   |       |
| 1709 | 35     |  |     |      |        |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2   | 12   |        | 5.59  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 386 | 1967 |        | 5.22  |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 868 | 11   | 110.27 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 2   | 14   |        | 6.62  |
| 1710 | 650195 |  |     |      |        |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0    | 6.34   |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0    | 6.44   |       |
| 1711 | 639705 |  |     |      |        |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10  | 0    | 10.57  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10  | 0    | 10.73  |       |
| 1712 | 185465 |  |     |      |        |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 4   | 14   |        | 3.45  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 2   | 14   |        | 7.17  |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 25  | 9    | 2.81   |       |

Table 5

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
| 1713 | 378525 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 1  | 9.14  |      |
| 1714 | 2889   |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 8  | 19 |       | 2.57 |
| 1715 | 557686 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 1716 | 735786 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
| 1717 | 455145 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 1718 | 639667 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |      |
| 1719 | 446913 |  |    |    |       |      |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 10 | 0  | 11.43 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 63 | 0  | 67.62 |      |
|      |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 8.55  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 63 | 1  | 66.59 |      |
| 1720 | 402494 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 3  | 13 |       | 4.1  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 13 | 3  | 4.4   |      |
| 1721 | 734256 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
| 1722 | 734256 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
| 1723 | 559362 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88 |
| 1724 | 639651 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 1725 | 419774 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 12 |       | 5.59 |
| 1726 | 555318 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 12 |       | 5.91 |
| 1727 | 449956 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 1  | 10.16 |      |
| 1728 | 558427 |  |    |    |       |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 4  | 15 |       | 3.55  |
| 1729 | 7531   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 8  |       | 8.67  |
| 1730 | 446514 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 1  | 8.12  |       |
| 1731 | 456808 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 42 | 1  | 42.65 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 42 |       | 5.68  |
| 1732 | 447035 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 1  | 8.12  |       |
| 1733 | 446913 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 63 | 1  | 66.59 |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 63 | 0  | 67.62 |       |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 10 | 0  | 11.43 |       |
|      |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 8.55  |       |
| 1734 | 446900 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 11 |       | 5.42  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 11 |       | 10.25 |
| 1735 | 504513 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 1736 | 380477 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 1738 | 8259   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 10 | 0  | 9.22  |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 13 | 49 |       | 2.7   |
| 1739 | 8259   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 10 | 0  | 9.22  |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 13 | 49 |       | 2.7   |
| 1740 | 552968 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 9  |       | 8.86  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 9  |       | 8.38  |
| 1741 | 650845 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 1742 | 648594 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |       |
| 1743 | 648594 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |       |
| 1744 | 2796   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 8  | 37 |       | 4.74  |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
| 1745 | 5753   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 10 |       | 10.84 |
| 1746 | 734256 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 1747 | 449580 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 16 | 4  | 4.23  |       |
| 1748 | 553705 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 0  | 12.68 |       |
| 1749 | 730670 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 1750 | 15035  |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 1  | 8.59  |       |
| 1751 | 394436 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 1752 | 726810 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 1753 | 352763 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 10 |       | 9.85  |
| 1754 | 3506   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1  | 10 |       | 10.25 |
| 1755 | 726377 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
| 1756 | 562111 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 13 |       | 6.4   |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 13 |       | 6.06  |
| 1757 | 404475 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 2  | 5.59  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 19 | 2  | 10.2  |       |
| 1758 | 13824  |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85  |       |
| 1759 | 558222 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1760 | 2834   |  |    |    |       |       |



Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A   | B   | A/B    | B/A   |
|------|--------|--|-----|-----|--------|-------|
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 8   | 22  |        | 2.98  |
| 1761 | 453470 |  |     |     |        |       |
|      |        |  |     |     |        |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12  | 1   | 12.68  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 12  | 1   | 12.88  |       |
| 1762 | 558682 |  |     |     |        |       |
|      |        |  |     |     |        |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3   | 12  |        | 3.94  |
| 1763 | 641710 |  |     |     |        |       |
|      |        |  |     |     |        |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0   | 6.44   |       |
| 1764 | 640221 |  |     |     |        |       |
|      |        |  |     |     |        |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8   | 0   | 8.59   |       |
| 1765 | 559057 |  |     |     |        |       |
|      |        |  |     |     |        |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 7   |        | 6.52  |
| 1766 | 551433 |  |     |     |        |       |
|      |        |  |     |     |        |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 8   |        | 7.88  |
| 1767 | 5729   |  |     |     |        |       |
|      |        |  |     |     |        |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1   | 10  |        | 10.84 |
| 1768 | 352763 |  |     |     |        |       |
|      |        |  |     |     |        |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 10  |        | 9.85  |
| 1769 | 375651 |  |     |     |        |       |
|      |        |  |     |     |        |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8   | 0   | 8.12   |       |
| 1770 | 644032 |  |     |     |        |       |
|      |        |  |     |     |        |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 124 | 0   | 125.92 |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0   | 7.51   |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7   | 124 |        | 16.76 |
| 1771 | 185562 |  |     |     |        |       |
|      |        |  |     |     |        |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0   | 9   |        | 9.22  |
| 1772 | 736349 |  |     |     |        |       |
|      |        |  |     |     |        |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6   |        | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0   | 6.09   |       |
| 1773 | 638870 |  |     |     |        |       |
|      |        |  |     |     |        |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11  | 0   | 11.17  |       |
| 1774 | 649719 |  |     |     |        |       |
|      |        |  |     |     |        |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0   | 6.44   |       |
| 1775 | 62016  |  |     |     |        |       |
|      |        |  |     |     |        |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6   |        | 5.91  |
| 1776 | 2889   |  |     |     |        |       |
|      |        |  |     |     |        |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 8   | 19  |        | 2.57  |
| 1777 | 647135 |  |     |     |        |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A   |
|------|--------|--|----|----|------|-------|
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51 |       |
| 1778 | 8283   |  |    |    |      |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 8  |      | 8.67  |
| 1779 | 732121 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |      | 6.62  |
| 1780 | 532307 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |      | 6.89  |
| 1781 | 6589   |  |    |    |      |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 1  | 9  |      | 9.76  |
| 1782 | 554678 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 2  | 5.28 |       |
| 1783 | 450410 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |      | 6.89  |
| 1784 | 643924 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
| 1785 | 453719 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 9  |      | 8.86  |
| 1786 | 451811 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 2  | 5.37 |       |
| 1787 | 453059 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 1  | 9.51 |       |
| 1788 | 453457 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |      | 7.88  |
| 1789 | 558454 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |      | 6.52  |
| 1790 | 417467 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |      | 6.52  |
| 1791 | 447850 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91  |
| 1792 | 557948 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 11 |      | 10.83 |
| 1793 | 452685 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 15 | 5  | 3.17 |       |
| 1794 | 446964 |  |    |    |      |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 10 |       | 9.32  |
| 1795 | 550318 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 15 | 3  | 5.28  |       |
| 1796 | 407077 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 8  |       | 7.45  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88  |
| 1797 | 650864 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
| 1798 | 644721 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 1799 | 485431 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 1800 | 651073 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
| 1801 | 725811 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 1802 | 645139 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |       |
| 1803 | 185478 |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 14 |       | 14.35 |
| 1804 | 1441   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 9  | 40 |       | 4.82  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 38 | 16 | 2.32  |       |
| 1805 | 640005 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 20 | 6  | 3.52  |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 20 | 0  | 21.47 |       |
| 1806 | 728273 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
| 1807 | 185579 |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 8  |       | 8.2   |
| 1808 | 724473 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|      |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 5  | 16 |       | 3.25  |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A  |
|------|--------|--|----|----|------|------|
| 1809 | 559674 |  |    |    |      |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |      | 6.52 |
| 1810 | 456026 |  |    |    |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 24 | 4  | 6.34 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 24 | 8  | 3.22 |      |
| 1811 | 549320 |  |    |    |      |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |      | 6.52 |
| 1812 | 447338 |  |    |    |      |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51 |      |
| 1813 | 560700 |  |    |    |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91 |
| 1814 | 3070   |  |    |    |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91 |
| 1815 | 3070   |  |    |    |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91 |
| 1816 | 380477 |  |    |    |      |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51 |      |
| 1817 | 735040 |  |    |    |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |      |
| 1818 | 378525 |  |    |    |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 1  | 9.14 |      |
| 1819 | 284586 |  |    |    |      |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |      |
| 1820 | 640276 |  |    |    |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12 |      |
| 1821 | 3344   |  |    |    |      |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 7  | 17 |      | 2.63 |
| 1822 | 555830 |  |    |    |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 16 | 2  | 8.46 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 16 | 2  | 8.59 |      |
| 1823 | 726307 |  |    |    |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |      |
| 1824 | 416    |  |    |    |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 23 |      | 2.72 |
|      |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 11 | 31 |      | 2.87 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 22 |      | 2.56 |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
| 1825 | 2543   |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 23 | 7  | 3.03  |      |
| 1826 | 639352 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |      |
| 1827 | 453592 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 19 | 6  | 3.35  |      |
| 1828 | 450633 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 34 | 13 | 2.76  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 34 | 7  | 5.21  |      |
| 1829 | 448383 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 13 | 1  | 13.95 |      |
| 1830 | 648719 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 1  | 9.51  |      |
| 1831 | 730655 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
| 1832 | 141185 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |      |
| 1833 | 640498 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
| 1834 | 9029   |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 7  | 0  | 6.46  |      |
| 1835 | 559674 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52 |
| 1836 | 555734 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 10 |       | 9.32 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 10 |       | 9.85 |
| 1837 | 1943   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 16 | 4  | 3.9   |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 9  | 29 |       | 3.49 |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 19 |       | 3    |
| 1838 | 648320 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 1839 | 558098 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
| 1840 | 468672 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 8  |       | 7.88  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 1841 | 456596 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 12 |       | 11.82 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 12 |       | 5.59  |
| 1842 | 649722 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
| 1843 | 550708 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88  |
| 1844 | 643931 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 1845 | 726927 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0  | 11.17 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 11 |       | 10.41 |
| 1846 | 459012 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 1847 | 397773 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 12 | 0  | 12.88 |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14  |       |
| 1848 | 450004 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 13 |       | 12.3  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 13 | 2  | 6.6   |       |
| 1849 | 649732 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 1850 | 553955 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1851 | 646309 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 1852 | 402727 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 5  | 17 |       | 3.17  |
| 1853 | 468736 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1854 | 650422 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 18 | 6  | 3.17  |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 18 | 0  | 19.32 |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
| 1855 | 730533 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
| 1856 | 726307 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 1857 | 450311 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 1  | 8.46  |       |
| 1858 | 450940 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 9  |       | 8.38  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 9  |       | 8.86  |
| 1859 | 726786 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |       |
| 1860 | 7634   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85  |       |
| 1861 | 230995 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
| 1862 | 374770 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |       |
| 1863 | 9275   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 6  |       | 6.15  |
| 1864 | 553860 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 9  |       | 8.38  |
| 1865 | 452010 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 13 | 3  | 4.4   |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 3  | 13 |       | 4.1   |
| 1866 | 649560 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |
| 1867 | 452704 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 1  | 10.57 |       |
| 1868 | 447594 |  |    |    |       |       |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 11 | 2  | 6.29  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 20 |       | 3.11  |
| 1869 | 555444 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 22 | 4  | 5.59  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 2  | 22 |       | 10.41 |
| 1870 | 736556 |  |    |    |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57 |
| 1871 | 5289   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 19 | 2  | 9.27  |      |
| 1872 | 732121 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
| 1873 | 452567 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 14 |       | 4.6  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 21 | 3  | 7.4   |      |
| 1874 | 551634 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 1875 | 644099 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 1876 | 726788 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68 |
| 1877 | 638802 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 1878 | 646283 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 0  | 9.51  |      |
| 1879 | 8403   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85  |      |
| 1880 | 2224   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 44 | 8  | 5.37  |      |
| 1881 | 650053 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 1  | 10.57 |      |
| 1882 | 380477 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
| 1883 | 450867 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |      |
| 1884 | 456764 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 1  | 10.16 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 14 | 1  | 15.03 |      |
| 1885 | 641373 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 15 | 3  | 5.28  |      |



Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A   |
|------|--------|--|----|----|------|-------|
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 15 | 0  | 16.1 |       |
| 1886 | 555882 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 9  |      | 8.86  |
| 1887 | 644046 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66 |       |
| 1888 | 447250 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
| 1889 | 456596 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 12 |      | 5.59  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 12 |      | 11.82 |
| 1890 | 2218   |  |    |    |      |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 21 |      | 11.38 |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 27 | 8  | 3.29 |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 5  | 0  | 6.99 |       |
| 1891 | 446450 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 3  | 3.88 |       |
| 1892 | 640889 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
| 1893 | 530774 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 5  | 16 |      | 2.98  |
| 1894 | 649062 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |       |
| 1895 | 12808  |  |    |    |      |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85 |       |
| 1896 | 468672 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 8  |      | 7.88  |
| 1897 | 650773 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
| 1898 | 732237 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
| 1899 | 650773 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
| 1900 | 550216 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |      | 6.52  |
| 1901 | 639189 |  |    |    |      |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B   | A/B   | B/A  |
|------|--------|--|----|-----|-------|------|
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0   | 7.51  |      |
| 1902 | 3447   |  |    |     |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 16  |       | 8.67 |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 0  | 13  |       | 9.3  |
| 1903 | 2012   |  |    |     |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 20 | 58  |       | 2.97 |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 13 | 29  |       | 2.42 |
| 1904 | 642876 |  |    |     |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0   | 10.73 |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 2   | 5.28  |      |
| 1905 | 449690 |  |    |     |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 17  |       | 5.58 |
| 1906 | 451208 |  |    |     |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 14 | 3   | 5.01  |      |
| 1907 | 725811 |  |    |     |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0   | 6.09  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6   |       | 5.68 |
| 1908 | 1256   |  |    |     |       |      |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 35 | 110 |       | 2.25 |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 14 | 31  |       | 2.27 |
| 1909 | 446599 |  |    |     |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 13 | 2   | 6.87  |      |
| 1910 | 446537 |  |    |     |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 1   | 9.51  |      |
| 1911 | 726281 |  |    |     |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7   |       | 6.62 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0   | 7.11  |      |
| 1912 | 11286  |  |    |     |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6   |       | 6.5  |
| 1913 | 556082 |  |    |     |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 10  |       | 9.85 |
| 1914 | 97507  |  |    |     |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 9   |       | 8.51 |
| 1915 | 535955 |  |    |     |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 10  |       | 9.85 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 10  |       | 9.32 |
| 1916 | 728251 |  |    |     |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0   | 6.09  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6   |       | 5.68 |

**Table 5**

| SEQ  | CLST   | Library Pair A,B                                 | A   | B   | A/B    | B/A   |
|------|--------|--|-----|-----|--------|-------|
| 1917 | 733849 |  |     |     |        |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7   | 0   | 7.11   |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 7   |        | 6.62  |
| 1918 | 447574 |  |     |     |        |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0   | 7.51   |       |
| 1919 | 7607   |  |     |     |        |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 13  | 3   | 4.65   |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 13  | 4   | 3.44   |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0   | 7   |        | 7.59  |
| 1920 | 644032 |  |     |     |        |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7   | 124 |        | 16.76 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 124 | 0   | 125.92 |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0   | 7.51   |       |
| 1921 | 454087 |  |     |     |        |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 14  | 3   | 4.93   |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 14  | 1   | 15.03  |       |
| 1922 | 412364 |  |     |     |        |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0   | 6.34   |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0   | 6.44   |       |
| 1923 | 535208 |  |     |     |        |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0   | 6.34   |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0   | 6.44   |       |
| 1924 | 644609 |  |     |     |        |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0   | 7.51   |       |
| 1925 | 645073 |  |     |     |        |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0   | 6.34   |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0   | 6.44   |       |
| 1926 | 417467 |  |     |     |        |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 7   |        | 6.52  |
| 1927 | 554188 |  |     |     |        |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0   | 6.34   |       |
| 1928 | 647185 |  |     |     |        |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0   | 6.44   |       |
| 1929 | 736679 |  |     |     |        |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6   |        | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0   | 6.09   |       |
| 1930 | 553547 |  |     |     |        |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6   |        | 5.91  |
| 1931 | 641524 |  |     |     |        |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
| 1932 | 649717 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |      |
| 1933 | 451041 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 1934 | 3483   |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 3  | 20 |       | 7.23 |
| 1935 | 500959 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |      |
| 1936 | 500959 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59  |      |
| 1937 | 697    |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 30 | 72 |       | 2.46 |
|      |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 10 | 2  | 4.92  |      |
| 1938 | 736955 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 13 | 0  | 13.2  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 13 |       | 12.3 |
| 1939 | 554742 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 1940 | 642973 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |      |
| 1941 | 449437 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 14 | 3  | 4.93  |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 12 |       | 3.94 |
| 1942 | 467991 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |      |
| 1943 | 650204 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 11 | 0  | 11.81 |      |
| 1944 | 640618 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 1945 | 452366 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 1946 | 640276 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |      |
| 1947 | 554101 |  |    |    |       |      |
|      |        |  |    |    |       |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A   |
|------|--------|--|----|----|------|-------|
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
| 1948 | 185432 |  |    |    |      |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 26 |      | 26.65 |
| 1949 | 455598 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91  |
| 1950 | 649354 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
| 1951 | 4408   |  |    |    |      |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 4  | 17 |      | 4.36  |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 21 | 3  | 9.78 |       |
| 1952 | 452366 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |       |
| 1953 | 452366 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |       |
| 1954 | 727331 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
| 1955 | 644853 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
| 1956 | 554079 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 10 |      | 4.92  |
| 1957 | 556245 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
| 1958 | 557388 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 13 | 2  | 6.6  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 13 |      | 12.3  |
| 1959 | 449468 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 11 |      | 5.12  |
| 1960 | 556245 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
| 1961 | 455327 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 12 |      | 11.18 |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 10 |      | 9.46  |
| 1962 | 546632 |  |    |    |      |       |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 3  | 34 |      | 11.22 |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 15 | 0  | 15.23 |       |
| 1963 | 558762 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89  |
| 1964 | 550818 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88  |
| 1965 | 554079 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 10 |       | 4.92  |
| 1966 | 452430 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 1967 | 452430 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 1968 | 556082 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 10 |       | 9.85  |
| 1969 | 514418 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 9  |       | 8.86  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 9  |       | 8.38  |
| 1970 | 426895 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 18 |       | 8.38  |
| 1971 | 560803 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |       | 6.89  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
| 1972 | 447737 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 19 | 6  | 3.35  |       |
| 1973 | 373432 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 23 | 78 |       | 3.16  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 23 | 53 |       | 2.18  |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 3  | 49 |       | 11.69 |
| 1974 | 779    |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 60 | 22 | 2.66  |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 27 | 54 |       | 2.17  |
| 1975 | 455327 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 10 |       | 9.46  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 12 |       | 11.18 |
| 1976 | 554742 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 1977 | 455327 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 10 |       | 9.46  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 12 |       | 11.18 |
| 1978 | 11043  |  |    |    |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 1979 | 727447 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 1980 | 552905 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
| 1981 | 446900 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 11 |       | 5.42  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 11 |       | 10.25 |
| 1982 | 644190 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 1983 | 455327 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 10 |       | 9.46  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 12 |       | 11.18 |
| 1984 | 422375 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 11 |       | 5.12  |
| 1985 | 422375 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 11 |       | 5.12  |
| 1986 | 530774 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 5  | 16 |       | 2.98  |
| 1987 | 554101 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 1988 | 5268   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 15 |       | 16.26 |
| 1989 | 642461 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 14 | 0  | 15.03 |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 0  | 10.16 |       |
| 1990 | 770    |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 47 | 9  | 5.1   |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 11 | 1  | 11.81 |       |
| 1991 | 3837   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 9  | 1  | 8.78  |       |
| 1992 | 561382 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 2  | 6.34  |       |
| 1993 | 4408   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 21 | 3  | 9.78  |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 4  | 17 |       | 4.36  |
| 1994 | 5686   |  |    |    |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A  |
|------|--------|--|----|----|------|------|
|      |        |  |    |    |      |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 16 | 3  | 5.2  |      |
| 1995 | 374609 |  |    |    |      |      |
|      |        |  |    |    |      |      |
|      |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 1  | 9  |      | 9.15 |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |      | 6.62 |
| 1996 | 734793 |  |    |    |      |      |
|      |        |  |    |    |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0  | 9.14 |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |      | 8.51 |
| 1997 | 452430 |  |    |    |      |      |
|      |        |  |    |    |      |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |      |
| 1998 | 450940 |  |    |    |      |      |
|      |        |  |    |    |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 9  |      | 8.86 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 9  |      | 8.38 |
| 1999 | 460445 |  |    |    |      |      |
|      |        |  |    |    |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91 |
| 2000 | 549041 |  |    |    |      |      |
|      |        |  |    |    |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91 |
| 2001 | 555276 |  |    |    |      |      |
|      |        |  |    |    |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91 |
| 2002 | 426895 |  |    |    |      |      |
|      |        |  |    |    |      |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 18 |      | 8.38 |
| 2003 | 1833   |  |    |    |      |      |
|      |        |  |    |    |      |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 9  | 25 |      | 3.01 |
| 2004 | 446450 |  |    |    |      |      |
|      |        |  |    |    |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 3  | 3.88 |      |
| 2005 | 650517 |  |    |    |      |      |
|      |        |  |    |    |      |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |      |
| 2006 | 554785 |  |    |    |      |      |
|      |        |  |    |    |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 8  |      | 7.88 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 8  |      | 7.45 |
| 2007 | 607430 |  |    |    |      |      |
|      |        |  |    |    |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |      |
| 2008 | 446673 |  |    |    |      |      |
|      |        |  |    |    |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 1  | 8.12 |      |
| 2009 | 734685 |  |    |    |      |      |
|      |        |  |    |    |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |      |
| 2010 | 11630  |  |    |    |      |      |



Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A   |
|------|--------|--|----|----|------|-------|
|      |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 1  | 12 |      | 12.2  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 3  | 13 |      | 4.44  |
| 2011 | 2930   |  |    |    |      |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 3  | 14 |      | 5.06  |
| 2012 | 44424  |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 41 | 90 |      | 2.16  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 25 | 90 |      | 3.35  |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 4  | 40 |      | 7.16  |
| 2013 | 452052 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 1  | 8.59 |       |
| 2014 | 449356 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 21 |      | 2.79  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 4  | 21 |      | 5.17  |
| 2015 | 726225 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
| 2016 | 453708 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 19 |      | 18.71 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 19 |      | 17.7  |
| 2017 | 447858 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 3  | 4.23 |       |
| 2018 | 451613 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 4  | 14 |      | 3.26  |
| 2019 | 650337 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
| 2020 | 62016  |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91  |
| 2021 | 447250 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
| 2022 | 3837   |  |    |    |      |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 9  | 1  | 8.78 |       |
| 2023 | 640614 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 13 | 0  | 13.2 |       |
| 2024 | 729531 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
| 2025 | 729531 |  |    |    |      |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 2026 | 647952 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 2027 | 446913 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 63 | 1  | 66.59 |       |
|      |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 8.55  |       |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 10 | 0  | 11.43 |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 63 | 0  | 67.62 |       |
| 2028 | 2675   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 12 | 2  | 5.85  |       |
| 2029 | 643481 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 2030 | 1345   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 18 | 6  | 2.95  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 44 | 27 | 2.28  |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 25 | 11 | 2.22  |       |
| 2031 | 26     |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 62 | 0  | 60.49 |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 28 |       | 30.36 |
| 2032 | 945    |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 10 | 21 |       | 2.28  |
| 2033 | 449169 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 16 | 2  | 8.46  |       |
| 2034 | 394193 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 2035 | 452212 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 2036 | 394193 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 2037 | 1310   |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 42 | 16 | 2.56  |       |
|      |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 15 | 2  | 7.38  |       |
| 2038 | 734094 |  |    |    |       |       |
|      |        |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |       |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 6  | 0  | 6.06  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57  |
| 2039 | 646579 |  |    |    |       |       |
|      |        |  |    |    |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 2040 | 4471   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 1  | 9.76  |      |
| 2041 | 729173 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |       | 7.57 |
| 2042 | 450323 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 8  |       | 7.45 |
| 2043 | 4652   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 16 | 2  | 7.81  |      |
| 2044 | 553316 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 3  | 4.23  |      |
| 2045 | 642604 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 13 | 0  | 13.2  |      |
| 2046 | 553316 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 3  | 4.23  |      |
| 2047 | 4097   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 20 | 43 |       | 2.2  |
| 2048 | 6818   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 24 | 8  | 3.22  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 24 | 10 | 2.54  |      |
| 2049 | 395341 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62 |
| 2050 | 649143 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 2051 | 649143 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 2052 | 648310 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
| 2053 | 447574 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
| 2054 | 648931 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66  |      |
| 2055 | 6878   |  |    |    |       |      |
|      |        |  |    |    |       |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A   | B  | A/B    | B/A  |
|------|--------|--|-----|----|--------|------|
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 2   | 11 |        | 5.64 |
| 2056 | 452238 |  |     |    |        |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6  |        | 5.68 |
| 2057 | 1870   |  |     |    |        |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 11  | 31 |        | 3.06 |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 12  | 3  | 3.9    |      |
| 2058 | 559259 |  |     |    |        |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 17  | 5  | 3.59   |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 5   | 21 |        | 4.14 |
| 2059 | 453457 |  |     |    |        |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 8  |        | 7.88 |
| 2060 | 8868   |  |     |    |        |      |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 5   | 0  | 6.99   |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 9   | 1  | 8.78   |      |
| 2061 | 453059 |  |     |    |        |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9   | 0  | 9.66   |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9   | 1  | 9.51   |      |
| 2062 | 236368 |  |     |    |        |      |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 9   | 1  | 10.29  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 271 | 0  | 290.88 |      |
|      |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 9   | 0  | 7.69   |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 271 | 16 | 17.9   |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 16  | 0  | 16.25  |      |
| 2063 | 453059 |  |     |    |        |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9   | 1  | 9.51   |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9   | 0  | 9.66   |      |
| 2064 | 549979 |  |     |    |        |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 7  |        | 6.89 |
| 2065 | 515631 |  |     |    |        |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6  |        | 5.68 |
| 2066 | 2235   |  |     |    |        |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 36  | 12 | 2.93   |      |
| 2067 | 448193 |  |     |    |        |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1   | 10 |        | 9.46 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10  | 2  | 5.08   |      |
| 2068 | 530774 |  |     |    |        |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 5   | 16 |        | 2.98 |
| 2069 | 650204 |  |     |    |        |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 11  | 0  | 11.81  |      |
| 2070 | 644240 |  |     |    |        |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A   |
|------|--------|--|----|----|------|-------|
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51 |       |
| 2071 | 552614 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7  |      | 6.89  |
| 2072 | 727331 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
| 2073 | 185457 |  |    |    |      |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 18 |      | 18.45 |
| 2074 | 454531 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 9  |      | 8.86  |
| 2075 | 643485 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 9  | 1  | 9.51 |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 9.66 |       |
| 2076 | 733669 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
| 2077 | 452344 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
| 2078 | 63602  |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91  |
| 2079 | 454155 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 2  | 6.34 |       |
| 2080 | 549903 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |      | 7.88  |
| 2081 | 515631 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
| 2082 | 6878   |  |    |    |      |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 2  | 11 |      | 5.64  |
| 2083 | 2977   |  |    |    |      |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 15 | 4  | 3.66 |       |
| 2084 | 553823 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 24 | 7  | 3.62 |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 24 | 6  | 4.29 |       |
| 2085 | 3070   |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91  |
| 2086 | 728884 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |      | 7.57  |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A  |
|------|--------|--|----|----|------|------|
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12 |      |
| 2087 | 8166   |  |    |    |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |      |
| 2088 | 644190 |  |    |    |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |      |
| 2089 | 733669 |  |    |    |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |      |
| 2090 | 728273 |  |    |    |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |      | 6.62 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11 |      |
| 2091 | 406499 |  |    |    |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |      |
| 2092 | 557720 |  |    |    |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |      | 5.91 |
| 2093 | 732050 |  |    |    |      |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12 |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |      | 7.57 |
| 2094 | 450867 |  |    |    |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4  |      |
| 2095 | 650297 |  |    |    |      |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |      |
| 2096 | 448064 |  |    |    |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 3  | 3.88 |      |
| 2097 | 452530 |  |    |    |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 2  | 5.28 |      |
| 2098 | 7592   |  |    |    |      |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 7  |      | 7.59 |
| 2099 | 733669 |  |    |    |      |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |      |
| 2100 | 11028  |  |    |    |      |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |      | 6.5  |
| 2101 | 1013   |  |    |    |      |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 40 | 84 |      | 2.28 |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |      |
| 2102 | 549265 |  |    |    |      |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B   | A/B   | B/A   |
|------|--------|--|----|-----|-------|-------|
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 3   | 3.88  |       |
| 2103 | 376600 |  |    |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7   |       | 6.62  |
| 2104 | 643804 |  |    |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0   | 6.34  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0   | 6.44  |       |
| 2105 | 454927 |  |    |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 14  |       | 4.6   |
| 2106 | 446528 |  |    |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 0   | 10.57 |       |
| 2107 | 2218   |  |    |     |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 21  |       | 11.38 |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 5  | 0   | 6.99  |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 27 | 8   | 3.29  |       |
| 2108 | 452704 |  |    |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 1   | 10.57 |       |
| 2109 | 84895  |  |    |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 46 | 120 |       | 2.57  |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 0  | 12  |       | 8.59  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 24 | 120 |       | 4.66  |
| 2110 | 157629 |  |    |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 3  | 18  |       | 6.15  |
| 2111 | 2930   |  |    |     |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 3  | 14  |       | 5.06  |
| 2112 | 7037   |  |    |     |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 9   |       | 9.76  |
| 2113 | 559806 |  |    |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6   |       | 5.91  |
| 2114 | 452076 |  |    |     |       |       |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 11 | 1   | 11.11 |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 20 | 7   | 2.9   |       |
| 2115 | 454869 |  |    |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0   | 7.11  |       |
| 2116 | 559674 |  |    |     |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7   |       | 6.52  |
| 2117 | 2235   |  |    |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 36 | 12  | 2.93  |       |
| 2118 | 7545   |  |    |     |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A   |
|------|--------|--|----|----|------|-------|
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 9  | 0  | 8.3  |       |
| 2119 | 729173 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8  |      | 7.57  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12 |       |
| 2120 | 650448 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51 |       |
| 2121 | 172013 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |       |
| 2122 | 651088 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
| 2123 | 651088 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
| 2124 | 726810 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |      | 6.62  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11 |       |
| 2125 | 406499 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
| 2126 | 556325 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |      | 7.88  |
| 2127 | 644836 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0  | 8.46 |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0  | 8.59 |       |
| 2128 | 649062 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34 |       |
| 2129 | 454776 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 5  | 20 |      | 3.78  |
| 2130 | 377579 |  |    |    |      |       |
|      |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 25 | 53 |      | 2.16  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 13 |      | 6.06  |
| 2131 | 728131 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
| 2132 | 475203 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 14 |      | 13.04 |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 12 |      | 11.35 |
| 2133 | 727314 |  |    |    |      |       |



Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B   | A/B   | B/A   |
|------|--------|--|----|-----|-------|-------|
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0   | 7.11  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7   |       | 6.62  |
| 2134 | 552025 |  |    |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 19 | 6   | 3.35  |       |
| 2135 | 561382 |  |    |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 2   | 6.34  |       |
| 2136 | 732579 |  |    |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0   | 6.09  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6   |       | 5.68  |
| 2137 | 167    |  |    |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 19  |       | 2.57  |
| 2138 | 185585 |  |    |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 8   |       | 8.2   |
| 2139 | 728131 |  |    |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6   |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0   | 6.09  |       |
| 2140 | 475203 |  |    |     |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 14  |       | 13.04 |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 12  |       | 11.35 |
| 2141 | 724616 |  |    |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0   | 8.12  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 8   |       | 7.57  |
| 2143 | 645222 |  |    |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0   | 11.17 |       |
| 2144 | 400362 |  |    |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 35 | 117 |       | 3.29  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 21 | 117 |       | 5.19  |
| 2145 | 646583 |  |    |     |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0   | 7.51  |       |
| 2146 | 475203 |  |    |     |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 14  |       | 13.04 |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 12  |       | 11.35 |
| 2147 | 550001 |  |    |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 2   | 5.08  |       |
| 2148 | 640703 |  |    |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 0   | 10.16 |       |
| 2149 | 646583 |  |    |     |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0   | 7.51  |       |
| 2150 | 449468 |  |    |     |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 11 |       | 5.12  |
| 2151 | 449468 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 11 |       | 5.12  |
| 2152 | 551628 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 38 | 5  | 8.03  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 38 | 13 | 3.14  |       |
| 2153 | 449468 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 11 |       | 5.12  |
| 2154 | 417259 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 14 |       | 13.79 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 4  | 14 |       | 3.26  |
| 2155 | 448029 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 1  | 10.16 |       |
| 2156 | 524363 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 2157 | 446531 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 2158 | 561359 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 2  | 6.34  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 12 | 3  | 4.29  |       |
| 2159 | 711297 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 11 |       | 10.41 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0  | 11.17 |       |
| 2160 | 650097 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 2161 | 495715 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 8  |       | 7.88  |
| 2162 | 734685 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 2163 | 560515 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91  |
| 2164 | 3441   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 8  | 0  | 7.81  |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 4  | 13 |       | 3.52  |
| 2165 | 729273 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 7  |       | 6.62  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 7  | 0  | 7.11  |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B   | A/B   | B/A   |
|------|--------|--|----|-----|-------|-------|
| 2166 | 557039 |  |    |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2  | 16  |       | 7.88  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 2   | 5.81  |       |
| 2167 | 711297 |  |    |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 11  |       | 10.41 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0   | 11.17 |       |
| 2168 | 711297 |  |    |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 11  |       | 10.41 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0   | 11.17 |       |
| 2169 | 2860   |  |    |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 13  |       | 12.3  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 13  |       | 12.11 |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1  | 48  |       | 49.2  |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 23 | 9   | 2.36  |       |
| 2170 | 558534 |  |    |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 7   |       | 6.89  |
| 2171 | 711297 |  |    |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0   | 11.17 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 11  |       | 10.41 |
| 2172 | 378457 |  |    |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 9   |       | 8.51  |
| 2173 | 646583 |  |    |     |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0   | 7.51  |       |
| 2174 | 646583 |  |    |     |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0   | 7.51  |       |
| 2175 | 1996   |  |    |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 13 | 4   | 3.3   |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 34 | 139 |       | 4.19  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 2  | 13  |       | 6.15  |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 20 | 13  | 2.15  |       |
| 2176 | 7962   |  |    |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 0   | 6.83  |       |
| 2177 | 645139 |  |    |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 0   | 9.14  |       |
| 2178 | 449468 |  |    |     |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 11  |       | 5.12  |
| 2179 | 9898   |  |    |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 4  | 14  |       | 3.59  |
| 2180 | 406499 |  |    |     |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |      |
| 2181 | 1257   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 46 | 20 | 2.12  |      |
|      |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 6  | 42 |       | 7.12 |
| 2182 | 549903 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 8  |       | 7.88 |
| 2183 | 557906 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 3  | 4.23  |      |
| 2184 | 3538   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 18 | 5  | 3.32  |      |
| 2185 | 3114   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 9  | 1  | 8.78  |      |
| 2186 | 426895 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 18 |       | 8.38 |
| 2187 | 923    |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 23 |       | 3.11 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 23 | 9  | 2.6   |      |
| 2188 | 645194 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
| 2189 | 550161 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 4  | 15 |       | 3.55 |
| 2190 | 650119 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
| 2191 | 642142 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0  | 11.17 |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 2  | 11 |       | 5.2  |
| 2192 | 419255 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 11 | 1  | 11.81 |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 0  | 11.63 |      |
| 2193 | 552905 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52 |
| 2194 | 511997 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 2195 | 551434 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 40 | 13 | 3.25  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 40 | 6  | 7.16  |      |
| 2196 | 727447 |  |    |    |       |      |
|      |        |  |    |    |       |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A   | B  | A/B   | B/A  |
|------|--------|--|-----|----|-------|------|
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0  | 6.09  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6  |       | 5.68 |
| 2197 | 378786 |  |     |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 9  |       | 8.86 |
| 2198 | 649152 |  |     |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44  |      |
| 2199 | 18853  |  |     |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 6  |       | 5.91 |
| 2200 | 643481 |  |     |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44  |      |
| 2201 | 644417 |  |     |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0  | 6.09  |      |
| 2202 | 726788 |  |     |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0  | 6.09  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6  |       | 5.68 |
| 2203 | 206    |  |     |    |       |      |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 19  | 4  | 6.64  |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 166 | 79 | 2.05  |      |
| 2204 | 395930 |  |     |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44  |      |
| 2205 | 185589 |  |     |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0   | 9  |       | 9.22 |
| 2206 | 1441   |  |     |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 9   | 40 |       | 4.82 |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 38  | 16 | 2.32  |      |
| 2207 | 14522  |  |     |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0   | 8  |       | 8.2  |
| 2208 | 203605 |  |     |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 17  | 7  | 2.57  |      |
| 2209 | 551527 |  |     |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 7  |       | 6.52 |
| 2210 | 4509   |  |     |    |       |      |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 36  | 22 | 2.29  |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1   | 40 |       | 41   |
| 2211 | 447737 |  |     |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 19  | 6  | 3.35  |      |
| 2212 | 447388 |  |     |    |       |      |
|      |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 18  | 0  | 15.39 |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A   | B  | A/B   | B/A  |
|------|--------|--|-----|----|-------|------|
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 142 | 2  | 75.05 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 142 | 4  | 38.1  |      |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 18  | 0  | 20.57 |      |
| 2213 | 451932 |  |     |    |       |      |
|      |        |  |     |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 28  | 4  | 7.51  |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 15  | 4  | 3.81  |      |
| 2214 | 559043 |  |     |    |       |      |
|      |        |  |     |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11  | 50 |       | 4.48 |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 54  | 11 | 5.19  |      |
| 2215 | 380634 |  |     |    |       |      |
|      |        |  |     |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3   | 14 |       | 4.6  |
| 2216 | 495715 |  |     |    |       |      |
|      |        |  |     |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0   | 8  |       | 7.88 |
| 2217 | 451932 |  |     |    |       |      |
|      |        |  |     |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 28  | 4  | 7.51  |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 15  | 4  | 3.81  |      |
| 2218 | 447939 |  |     |    |       |      |
|      |        |  |     |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 14  | 1  | 14.8  |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1   | 8  |       | 7.88 |
| 2219 | 1181   |  |     |    |       |      |
|      |        |  |     |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 17  | 58 |       | 3.5  |
| 2220 | 376600 |  |     |    |       |      |
|      |        |  |     |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 7  |       | 6.62 |
| 2221 | 234761 |  |     |    |       |      |
|      |        |  |     |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8   | 0  | 8.59  |      |
| 2222 | 644417 |  |     |    |       |      |
|      |        |  |     |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0  | 6.09  |      |
| 2223 | 639048 |  |     |    |       |      |
|      |        |  |     |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0  | 7.51  |      |
| 2224 | 11452  |  |     |    |       |      |
|      |        |  |     |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0   | 6  |       | 6.5  |
| 2225 | 452076 |  |     |    |       |      |
|      |        |  |     |    |       |      |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 11  | 1  | 11.11 |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 20  | 7  | 2.9   |      |
| 2226 | 644523 |  |     |    |       |      |
|      |        |  |     |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0  | 6.09  |      |
| 2227 | 554678 |  |     |    |       |      |
|      |        |  |     |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10  | 2  | 5.28  |      |
| 2228 | 3550   |  |     |    |       |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 31 | 5  | 6.05  |       |
| 2229 | 450311 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 1  | 8.46  |       |
| 2230 | 647280 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |       |
| 2231 | 548858 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 11 |       | 10.83 |
| 2232 | 4204   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 16 | 2  | 7.38  |       |
| 2233 | 540690 |  |    |    |       |       |
|      |        | 23,24 (Normal Lung Tissue vs. Lung Tumor Tissue) | 0  | 8  |       | 7.92  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0  | 11.17 |       |
| 2234 | 404774 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 11 | 3  | 3.88  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 11 | 1  | 11.81 |       |
| 2235 | 557823 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 9  |       | 8.86  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 9  |       | 8.38  |
| 2236 | 1458   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 20 | 3  | 6.5   |       |
| 2237 | 485431 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
| 2238 | 2245   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 13 | 1  | 12.68 |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 12 | 27 |       | 2.44  |
| 2239 | 3242   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 17 |       | 9.22  |
| 2240 | 648747 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 2241 | 3805   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 17 | 3  | 5.23  |       |
| 2242 | 475203 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 12 |       | 11.35 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 14 |       | 13.04 |
| 2243 | 12018  |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 6  |       | 6.15  |
| 2244 | 475203 |  |    |    |       |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A   | B  | A/B   | B/A   |
|------|--------|--|-----|----|-------|-------|
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1   | 12 |       | 11.35 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1   | 14 |       | 13.04 |
| 2245 | 3805   |  |     |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 17  | 3  | 5.23  |       |
| 2246 | 496132 |  |     |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6   | 0  | 6.34  |       |
| 2247 | 650600 |  |     |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44  |       |
| 2248 | 650749 |  |     |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7   | 0  | 7.51  |       |
| 2249 | 223148 |  |     |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1   | 9  |       | 8.38  |
| 2250 | 449    |  |     |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3   | 14 |       | 4.35  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 3   | 14 |       | 4.42  |
| 2251 | 735620 |  |     |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6  |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0  | 6.09  |       |
| 2252 | 650600 |  |     |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44  |       |
| 2253 | 218    |  |     |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1   | 11 |       | 10.25 |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 127 | 49 | 2.53  |       |
| 2254 | 4161   |  |     |    |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 31  | 2  | 21.66 |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 13  | 1  | 11.99 |       |
| 2255 | 373202 |  |     |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 5   | 22 |       | 4.1   |
| 2256 | 724339 |  |     |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6  |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0  | 6.09  |       |
| 2257 | 113291 |  |     |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2   | 15 |       | 6.99  |
| 2258 | 736753 |  |     |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 11 |       | 10.41 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11  | 0  | 11.17 |       |
| 2259 | 650600 |  |     |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6   | 0  | 6.44  |       |



Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
| 2260 | 451569 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 8  |       | 7.45 |
| 2261 | 1297   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 30 | 14 | 2.09  |      |
| 2263 | 63602  |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 0  | 6  |       | 5.91 |
| 2264 | 2757   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 4  | 16 |       | 4.1  |
| 2265 | 373128 |  |    |    |       |      |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 4  | 29 |       | 5.19 |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 4  | 14 |       | 3.26 |
| 2266 | 641479 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 8  | 0  | 8.12  |      |
| 2267 | 450380 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 4  | 31 |       | 7.22 |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 4  | 23 |       | 5.44 |
| 2268 | 133512 |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52 |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 0  | 8  |       | 7    |
| 2269 | 447211 |  |    |    |       |      |
|      |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0  | 7.69  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 46 | 0  | 49.38 |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 46 | 0  | 48.62 |      |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 9  | 0  | 10.29 |      |
| 2270 | 645222 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0  | 11.17 |      |
| 2271 | 645222 |  |    |    |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 11 | 0  | 11.17 |      |
| 2272 | 17372  |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |      |
| 2273 | 451619 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 24 | 9  | 2.82  |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 9  | 39 |       | 4.27 |
| 2274 | 2510   |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 13 | 1  | 12.68 |      |
| 2275 | 643974 |  |    |    |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 16 | 3  | 5.64  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 16 | 0  | 17.17 |      |
| 2276 | 500630 |  |    |    |       |      |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B  | B/A   |
|------|--------|--|----|----|------|-------|
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09 |       |
| 2277 | 3101   |  |    |    |      |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 4  | 19 |      | 5.15  |
| 2278 | 446938 |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 1  | 8.46 |       |
| 2279 | 554469 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 24 | 3  | 8.59 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 24 | 8  | 3.17 |       |
| 2280 | 554469 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 24 | 3  | 8.59 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 24 | 8  | 3.17 |       |
| 2281 | 2894   |  |    |    |      |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |      | 5.68  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 22 | 4  | 5.37 |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 5  | 20 |      | 2.86  |
| 2282 | 650600 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
| 2283 | 3101   |  |    |    |      |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 4  | 19 |      | 5.15  |
| 2284 | 554469 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 24 | 3  | 8.59 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 24 | 8  | 3.17 |       |
| 2285 | 9910   |  |    |    |      |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85 |       |
| 2286 | 400608 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 21 | 7  | 3.22 |       |
| 2287 | 555051 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 8  |      | 7.45  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 9  |      | 8.51  |
| 2288 | 185400 |  |    |    |      |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 1  | 9  |      | 8.86  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1  | 62 |      | 63.55 |
| 2289 | 3059   |  |    |    |      |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 16 | 3  | 5.2  |       |
| 2290 | 647185 |  |    |    |      |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44 |       |
| 2291 | 1669   |  |    |    |      |       |
|      |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 0  | 34 |      | 34.57 |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 40 | 0  | 39.03 |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 11 | 29 |       | 2.86  |
| 2292 | 7158   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0  | 5.85  |       |
| 2293 | 496132 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 2294 | 378623 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3  | 33 |       | 10.25 |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 3  | 24 |       | 7.57  |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 1  | 16 |       | 11.45 |
| 2295 | 1257   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 46 | 20 | 2.12  |       |
|      |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 6  | 42 |       | 7.12  |
| 2296 | 648499 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 10 | 0  | 10.73 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 10 | 2  | 5.28  |       |
| 2297 | 185627 |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 7  |       | 7.17  |
| 2298 | 640005 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 20 | 6  | 3.52  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 20 | 0  | 21.47 |       |
| 2299 | 553462 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 6  | 0  | 6.34  |       |
| 2300 | 649852 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 2301 | 422375 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 2  | 11 |       | 5.12  |
| 2302 | 10910  |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 6  |       | 6.5   |
| 2303 | 2737   |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 3  | 14 |       | 4.6   |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 4  | 14 |       | 3.26  |
| 2304 | 3438   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 5  | 14 |       | 3.04  |
| 2305 | 3438   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 5  | 14 |       | 3.04  |
| 2306 | 3763   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 19 | 6  | 2.92  |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A   | B    | A/B   | B/A   |
|------|--------|--|-----|------|-------|-------|
| 2307 | 648966 |  |     |      |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0    | 6.09  |       |
| 2308 | 724339 |  |     |      |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6    |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0    | 6.09  |       |
| 2309 | 451569 |  |     |      |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 8    |       | 7.45  |
| 2310 | 554109 |  |     |      |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 15  | 2    | 7.93  |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 2   | 11   |       | 5.42  |
| 2311 | 380339 |  |     |      |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 166 | 57   | 3.08  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 166 | 51   | 3.49  |       |
|      |        | 19,20 (Colon Tumor Tissue vs. Colon Metastasis)  | 9   | 0    | 6.73  |       |
|      |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 18  | 0    | 15.39 |       |
| 2312 | 729903 |  |     |      |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0    | 6.09  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6    |       | 5.68  |
| 2313 | 45     |  |     |      |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 374 | 1067 |       | 2.04  |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 40  | 119  |       | 2.81  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 40  | 209  |       | 4.87  |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 0   | 29   |       | 25.38 |
|      |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 11   |       | 12.87 |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 649 | 1876 |       | 2.96  |
| 2314 | 454653 |  |     |      |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 3   | 17   |       | 5.28  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 5   | 17   |       | 3.35  |
| 2315 | 11536  |  |     |      |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6   | 0    | 5.85  |       |
| 2316 | 373134 |  |     |      |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 2   | 45   |       | 16.1  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 24  | 73   |       | 2.83  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 28  | 73   |       | 2.57  |
| 2317 | 185691 |  |     |      |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0   | 6    |       | 6.15  |
| 2318 | 234761 |  |     |      |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8   | 0    | 8.59  |       |
| 2319 | 724339 |  |     |      |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0    | 6.09  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6    |       | 5.68  |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B   | A/B   | B/A  |
|------|--------|--|----|-----|-------|------|
| 2320 | 732740 |  |    |     |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6   |       | 5.68 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0   | 6.09  |      |
| 2321 | 35895  |  |    |     |       |      |
|      |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 6  | 19  |       | 3.22 |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 1  | 13  |       | 12.3 |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 13 | 0   | 13.2  |      |
| 2322 | 133512 |  |    |     |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7   |       | 6.52 |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 0  | 8   |       | 7    |
| 2323 | 2974   |  |    |     |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 22 | 7   | 2.9   |      |
| 2324 | 500    |  |    |     |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 89 | 22  | 3.95  |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 34 | 114 |       | 3.64 |
| 2325 | 376919 |  |    |     |       |      |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 24 | 61  |       | 2.5  |
|      |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 4  | 13  |       | 3.3  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 21 | 61  |       | 2.71 |
| 2326 | 8403   |  |    |     |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6  | 0   | 5.85  |      |
| 2327 | 3643   |  |    |     |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 6  | 19  |       | 3.43 |
| 2328 | 447211 |  |    |     |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 46 | 0   | 48.62 |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 46 | 0   | 49.38 |      |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 9  | 0   | 10.29 |      |
|      |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0   | 7.69  |      |
| 2329 | 447211 |  |    |     |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 46 | 0   | 49.38 |      |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 9  | 0   | 10.29 |      |
|      |        | 18,20 (Normal Colon Tissue vs. Colon Metastasis) | 9  | 0   | 7.69  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 46 | 0   | 48.62 |      |
| 2330 | 14929  |  |    |     |       |      |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 23 | 16  | 2.01  |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 2  | 13  |       | 6.15 |
| 2331 | 648934 |  |    |     |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8  | 0   | 8.46  |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 8  | 0   | 8.59  |      |
| 2332 | 731785 |  |    |     |       |      |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6   |       | 5.68 |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A   | B   | A/B   | B/A   |
|------|--------|--|-----|-----|-------|-------|
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0   | 6.09  |       |
| 2333 | 639908 |  |     |     |       |       |
|      |        |  |     |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 13  | 4   | 3.44  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 13  | 0   | 13.95 |       |
| 2334 | 344577 |  |     |     |       |       |
|      |        |  |     |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 28  | 2   | 14.22 |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 38  | 2   | 20.39 |       |
| 2335 | 2906   |  |     |     |       |       |
|      |        |  |     |     |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 10  | 25  |       | 2.71  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 7   |       | 6.52  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 2   | 15  |       | 7.69  |
| 2336 | 446938 |  |     |     |       |       |
|      |        |  |     |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 8   | 1   | 8.46  |       |
| 2337 | 2493   |  |     |     |       |       |
|      |        |  |     |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 33  | 9   | 3.58  |       |
| 2338 | 38     |  |     |     |       |       |
|      |        |  |     |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 40  | 118 |       | 2.79  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 40  | 259 |       | 6.03  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 118 | 259 |       | 2.16  |
|      |        | 19,20 (Colon Tumor Tissue vs. Colon Metastasis)  | 88  | 6   | 10.97 |       |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 3   | 88  |       | 25.67 |
| 2339 | 13818  |  |     |     |       |       |
|      |        |  |     |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 6   | 0   | 5.85  |       |
| 2340 | 8371   |  |     |     |       |       |
|      |        |  |     |     |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0   | 6   |       | 6.5   |
| 2341 | 402494 |  |     |     |       |       |
|      |        |  |     |     |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 3   | 13  |       | 4.1   |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 13  | 3   | 4.4   |       |
| 2342 | 731785 |  |     |     |       |       |
|      |        |  |     |     |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6   | 0   | 6.09  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0   | 6   |       | 5.68  |
| 2343 | 4621   |  |     |     |       |       |
|      |        |  |     |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 11  | 1   | 10.73 |       |
| 2344 | 9750   |  |     |     |       |       |
|      |        |  |     |     |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0   | 6   |       | 6.5   |
| 2345 | 133512 |  |     |     |       |       |
|      |        |  |     |     |       |       |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 0   | 8   |       | 7     |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0   | 7   |       | 6.52  |
| 2346 | 162626 |  |     |     |       |       |
|      |        |  |     |     |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1   | 12  |       | 12.3  |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
| 2347 | 730059 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 6  |       | 5.68  |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 6  | 0  | 6.09  |       |
| 2348 | 2069   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 26 | 8  | 3     |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 21 | 6  | 4.89  |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 1  | 47 |       | 48.17 |
| 2349 | 5868   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 2  | 4.88  |       |
| 2350 | 2683   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 3  | 22 |       | 7.95  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 13 | 2  | 6.34  |       |
| 2351 | 380409 |  |    |    |       |       |
|      |        | 16,17 (Colon Tumor Tissue vs. Colon Metastasis)  | 10 | 2  | 5.08  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 0  | 10 |       | 9.46  |
| 2352 | 639991 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 6  | 0  | 6.44  |       |
| 2353 | 535    |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 87 | 13 | 6.53  |       |
| 2354 | 14929  |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 2  | 13 |       | 6.15  |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 23 | 16 | 2.01  |       |
| 2355 | 134702 |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 7  |       | 7.17  |
| 2356 | 642477 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 2357 | 14929  |  |    |    |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 23 | 16 | 2.01  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 2  | 13 |       | 6.15  |
| 2358 | 134702 |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 7  |       | 7.17  |
| 2359 | 185649 |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 7  |       | 7.17  |
| 2360 | 10702  |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 15 |       | 15.37 |
| 2361 | 643955 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 12 | 0  | 12.88 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 0  | 12.68 |       |

Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
| 2362 | 643955 |  |    |    |       |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 12 | 0  | 12.88 |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 12 | 0  | 12.68 |       |
| 2363 | 4455   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 13 | 1  | 12.68 |       |
| 2364 | 185567 |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 0  | 9  |       | 9.22  |
| 2365 | 9115   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 0  | 7  |       | 7.59  |
| 2366 | 14929  |  |    |    |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 23 | 16 | 2.01  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 2  | 13 |       | 6.15  |
| 2367 | 14929  |  |    |    |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 23 | 16 | 2.01  |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 2  | 13 |       | 6.15  |
| 2368 | 4181   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 15 | 3  | 4.88  |       |
| 2369 | 5206   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 0  | 6.83  |       |
| 2370 | 825    |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 70 | 25 | 2.73  |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 13 | 3  | 6.06  |       |
| 2371 | 825    |  |    |    |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 13 | 3  | 6.06  |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 70 | 25 | 2.73  |       |
| 2372 | 825    |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 70 | 25 | 2.73  |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 13 | 3  | 6.06  |       |
| 2373 | 2748   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 26 |       | 14.09 |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 15 | 4  | 3.66  |       |
| 2374 | 2748   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 15 | 4  | 3.66  |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 26 |       | 14.09 |
| 2375 | 2748   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 26 |       | 14.09 |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 15 | 4  | 3.66  |       |
| 2376 | 133512 |  |    |    |       |       |
|      |        | 18,19 (Normal Colon Tissue vs. Colon Tumor)      | 0  | 8  |       | 7     |



Table 5

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A   |
|------|--------|--|----|----|-------|-------|
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 0  | 7  |       | 6.52  |
| 2377 | 2748   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 15 | 4  | 3.66  |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 2  | 26 |       | 14.09 |
| 2378 | 642477 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 2379 | 642477 |  |    |    |       |       |
|      |        | 15,16 (Normal Colon vs. Colon Tumor Tissue)      | 7  | 0  | 7.4   |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 7  | 0  | 7.51  |       |
| 2380 | 2493   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 33 | 9  | 3.58  |       |
| 2381 | 5796   |  |    |    |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 5  | 0  | 6.99  |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 14 | 3  | 4.55  |       |
| 2382 | 3782   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 21 | 0  | 20.49 |       |
| 2383 | 884    |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 51 | 20 | 2.49  |       |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 10 |       | 9.32  |
|      |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 20 | 7  | 2.81  |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 10 | 63 |       | 4.51  |
| 2384 | 5860   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 2  | 4.88  |       |
| 2385 | 5275   |  |    |    |       |       |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 11 | 2  | 5.07  |       |
| 2386 | 3932   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 13 | 1  | 12.68 |       |
| 2387 | 884    |  |    |    |       |       |
|      |        | 08,09 (Lung, High Met vs. Lung, Low Met)         | 10 | 63 |       | 4.51  |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 1  | 10 |       | 9.32  |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 51 | 20 | 2.49  |       |
|      |        | 21,22 (Normal Prostate vs. Prostate Cancer)      | 20 | 7  | 2.81  |       |
| 2388 | 4455   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 13 | 1  | 12.68 |       |
| 2389 | 5860   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 2  | 4.88  |       |
| 2390 | 5860   |  |    |    |       |       |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 10 | 2  | 4.88  |       |
| 2391 | 372791 |  |    |    |       |       |

**Table 5**

| SEQ  | CLST   | Library Pair A,B                                 | A  | B  | A/B   | B/A  |
|------|--------|--|----|----|-------|------|
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 12 | 0  | 12.88 |      |
| 2392 | 5206   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 03,04 (Breast, High Met vs. Breast, Non-Met)     | 7  | 0  | 6.83  |      |
| 2393 | 372791 |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 15,17 (Normal Colon Tissue vs. Colon Metastasis) | 12 | 0  | 12.88 |      |
| 2394 | 2846   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 8  | 19 |       | 2.57 |
| 2395 | 5275   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 11 | 2  | 5.07  |      |
| 2396 | 2846   |  |    |    |       |      |
|      |        |  |    |    |       |      |
|      |        | 01,02 (Colon, High Met vs. Colon, Low Met)       | 8  | 19 |       | 2.57 |